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- 1-Iowa City - 1913.
- 2-Confalls..1913
- 3-Bayfield - 1913.
- 4- Earlville -  $\frac{4}{17-18}$  1913
- 5-Mason City -  $\frac{4}{19-20}$  1913
- 6-Homestead - 1915
- 7-Muscantine Id. - 1916
- 8-Mason City  $\frac{4}{25}$  1920.
- 9- " "  $\frac{4}{7-6}$  1920
- 10-Mason City, Apr 17 - 1922
- 11- " " " 18 - 1922



Ebough  
Armenia, etc.

Haywood  
Inquiries

Belby con.

5 in M

1 " M.

Weldon

Calif. Hort. Soc.

1913

Iowa City.

Season stormy during March.  
Early part of April better, but  
the week ending Apr. 11 was very  
wet & on Tuesday, Apr. 8, snow fell  
abundantly.

Soft Maple was in flower first week  
3 April & Am. elm 2<sup>nd</sup> week.  
Blowhard pines opened about Apr. 9.



Apr. 12, 1913 Saturday

Went to Confol's woods.

Found hazel, *Trillium nivale*,  
a few *Hepaticas* in flower. *Ulex*  
*fulva* is just in prime. *U. americana*  
is about done. It is soft maple.

*Myrica* is just coming in bud.

Also found large red *Saxosiphia*

The day was bright but a little  
cool.

Took up roots of *Aspidium*  
*spiculatum* (buds still green)  
with buds just showing.

Also *Asplenium* &

*Asplenium filix foemina*  
(took roots)

Apr. 14, 1913 - Monday.

Left at 8<sup>35</sup> am for Bayfield.

Day bright, but cool in morning.

Found woods on bluff below

Blackstrap School ravine

cleared, - but poor pasture!

Walked to sandy point S. of sphagnum

bog & found *Houstonia missouriensis*

*Diaba caroliniana* and *Androsace*  
*caroliniana* in flower

*Amelanchier canadensis* in bud.

Stems, fls. of *Populus grandidentata*

Hazel through.

Walked back to sphagnum bog &

to shrub cabbage bog.

Found shrub cabbage, *Salix*

*discolor*, *Caltha palustris*

in flower. Also *Diaba*

& *Androsace* on sandy hill above  
spring.

Walked up to wet places higher



up and farther east, & collected  
some frogs. Went to road, E.  
of house. E. of road were  
many frogs, with large clusters  
of eggs.

Snow birds were plentiful.

*Agelaius phoeniceus* were  
abundant & whistled freely.

Shrub cabbages were abundant  
throughout.

Left Mayfield at 4:52 PM  
& got home at 6:18 PM.

Apr. 18, 1913.

## Trip to Earlville and Mason City

Left Iowa City Apr. 18 (Friday)  
at 6:30, attended Matinee meeting  
& at 10 PM. went to Mrs. Jewin's  
house.

Apr. 19 - Saturday

Left Cedar Rapids at 6:30 AM.  
for Manchester and Earlville.  
Mrs. Jewin, Sr. & Jr. went.  
We drove N. along Frop. line  
from Earlville, and then W. to  
Jewin farm. Stopped at  
Garrett's dam & collected  
mosses and diatoms, and a  
few *Physa* and a *Lymnaea* on  
the rocks below dam.

Walked to Almond & found  
piece of prairie along RR, opposite  
station & west, and another on a  
mound just W. of road going



N. from Brewin's house.

There are also bogs along RR,  
& we found much Caltha palustris  
a few ice flowers.

Along road S. of RR, (C. Ex. Co.)  
leading to Brewin's, along brook  
from Corylus americana &  
Populus grandidentata (stems)  
in flower.

On bluff along creek many  
Hepatica in flower.

Picked up a few land shells  
on bluff near bridge.

Some mosses were fine.

On higher prairie strip just W. of  
Brewin's road - found Carex pennsylvanica  
in flower.

Left Earlville at 3<sup>15</sup> P.M. for  
Parkersburg. Fare \$1.64

Ate supper at the Parkersburg Hotel  
& took C. & N.W. for Mason City at  
7:20 P.M. At hotel (& on train) met  
an original fishman, - Mike  
Sullivan, - a betting, etc. salesman,  
who has traveled widely.

Reached Mason City at 9 P.M. &  
visited with the folks.

Rained a little at night.

Apr. 20 - (Sunday) 1913

Cloudy in morning. Thunder-like  
rain.

Went out to Big Slough.

Found following plants in flower:

Alnus fulva - just beginning  
" americana - along, through.  
Hepatica - just started  
Salix discolor - flower.

" " red low  
shrub on plateau S.W. of  
Big Slough.



*Populus tremuloides* - <sup>mostly</sup> ~~at least~~ though  
*Corylus americana* - at best,  
*Negundo aceroides* - stem, just coming  
*Calla palustris* - in bud.

Dredged in the slough. Found  
many *Segmentina*, *Aplexa* and  
small *Lymnaea*. Few larger  
*Pisidium*, but collected about  
200? of the minute ones.

I got most of this material by  
'sweeping' the grasses and  
reeds which are in water.

Even the *Pisidia* (both species)  
were found in that way, though  
I got more of the little one  
by dragging the bottom.

also picked up many *Polygona*  
*profunda* & *P. multiloba*, &  
a few *P. patens*, & some  
*Pyramidea alternata* on the  
same slopes, which are now

almost entirely cleared.  
Few were moving. Most of  
the *P. profunda* have cephalopods.  
(It has been cold up here until  
a week ago.)

Also found *Vertigo*.

Under sticks in the bog I  
found a few *Carychium* &  
large *Encrinurus fulvus*.  
Also two dead shells of *Zonitoides*  
*nitidus*.

Also another shell of *Zon. arborum*  
& two *Buc. arana*.

A few *S. retusa* were found  
living. *Segmentina* was  
especially abundant.

On the slope *P. profunda*  
was found mostly away from  
sticks & stumps, in little  
pockets covered with leaves.  
*P. multiloba* & *P. alternata*



were more common about  
sticks or little rubbish  
heaps.

Also picked up a few murex  
& 1 lichen (*Phelocleistus*) on  
bar walls.

Left Miami City at 7.40 pm  
via Napa. Fare to  
Jamez City = \$3.10.



~~Wash. City June 25, 1892~~

~~Mr. Wilson then drove me out to bridge  
S.E. - on road going E. through sec. 12.  
I found forest of trees & shrubs  
all along the creek, - just a  
narrow border.~~

~~The Trinity N.E.S. of road &  
E. of line creek is a flat, somewhat  
undulating <sup>low</sup> ridge. The little cuts  
all along the road (they are paving  
it) show that 1-2 ft. below the  
surface soil there is a mass of  
gravel, small boulders (mostly under  
6 in. in diam) and water-worn  
fragments of rock. It looks like  
water worn stuff, but may be  
glacial drift.~~

~~On the ground in <sup>my</sup> clough along road  
I found quite a number of *Phlox  
maculata* in fl.  
(At the bridge across Line creek~~



Oct. 8, 1915 / Home

In <sup>upland</sup> woods:

*Crataegus margaritella*

*Pedera quinquefolia*

*Urtica vulpina*

*Prunus serotina*

*Sambucus canadensis*

*Corylus americana*

*Polygonum humifusum* v. *serotinum*

*Cornus paniculata*

*Smilax herbacea*

*Smilax racemosa*

*Prunus virginiana*

*Ulmus fulva*

*Elatium urticifolium*

*Lythrum hyssopifolium*

*Quercus macrocarpa*

*Carya ovata*

*Asplenium filix-foemina*

*Populus tremuloides*

*Cirsium altissimum*

*Rubus occidentalis*

*Rhus typhina*

*Geum album*

*Menispermum canadense*

*Desmodium illinoense*

*Elymus striatus*

*Festuca mitis*

*Agrostis stolonata*

*Agrostis hyemalis*

*Circaea lutetiana*

*Rubus gracilis*

*Muhlenbergia sylvatica*

*Bromus pumilus*

*Avena virginiana*

*Sanicula marilandica*

*Osmorhiza longistylis*

*Actaea spicata*

*Demissa Dillenii*

*Solidago ulmifolia*

*Triosteum perfoliatum*

*Cirsium v. C. G. Galtii*



*Lactuca floridana*

*Scrophularia marylandica*

*Althaea rosea*

*Galium triflorum*

*Campylocarpus americanus*

*Chrysanthemum velutinum*

*Chrysanthemum suberectum*

*Chrysanthemum album*

*Eupatorium purpureum*

*Polygonum virginicum*

*Monarda mollis*

*Cryptotaenia canadensis*

*Galium aparine*

*Urtica dioica*

*Monarda uniflora*

*Panicum hirsutum*

*Xanthoxylum americanum*

*Lappula virginica*

*Rubus allegheniensis*

*Adiantum pedatum*

*Lobelia inflata*

*Thalictrum purpureum*

*Veronica virginica*

*Polemonium reptans*

*Thymus leptostachya*

*Alarum scandens*

*Lonicera ~~sp.~~ <sup>hypericoides</sup>*

*Amphicarpa monoica*

*Saxifraga hypnoides*

*Carya cordiformis*

*Onoclea sensibilis*

*Isotria medeoloides*

*Laportea canadensis*

*Rhus glabra*

*Oxalis filipes*

*Zizia aurea*

*Carex rostrata*

*Rosa blanda*

*Gleditsia*

*Amorpha*

*Opuntia*

*Ostrya virginica*

*Hepatica aculeata*

Low

Far north

*Panicum*  
*Cyperus*  
*Portulaca*  
*Andropogon*



Along road

*Solidago <sup>gracilis</sup> canadensis*  
*Lespedeza cuneata*  
*Momordica mollis*  
*Coreopsis tripteris*  
*Carya chrysocarpa*  
*Polypogon sanguinalis*  
*Aster salicifolius*  
*Euphorbia corollata*  
*Solidago nemoralis*  
*Rhus glabra*  
(*Quercus muhlenbergii*  
*" velutina* juv)  
*Vitis vulpina*  
*Potamogeton amplifolius*  
*Aster multiflorus*  
*Cirsium discolor*  
*Lespedeza bicolor*  
*Aster Drummondii*  
*Helianthus scaberrimus*  
*Zizia aurea*  
*Aspirula tuberosa*  
*Agrostis perfoliata*  
(*Gnaphalium* Pigeon)

*Bromus horridus*  
*Elymus virginicus*  
(*Stachys* *viridis* juv) *Fraxinus*  
(*Prunus serotina*)  
*Corylus* *cornuta*  
*Rubus cuneatus*  
*Antennaria plantaginifolia*  
*Oxalis (filipes)*  
*Euphorbia corollata*  
*Ranunculus alba*  
*Amphispiza bilineata*  
*Andropogon furcatus*  
*Aster agerifolius*  
*Amorpha canescens*  
*Sorghastrum nutans*  
*Solidago ulmifolia*  
*Ceanothus americanus*  
*Panicum polyanthemum*  
*Eragrostis canadensis*  
*Cornus pennsylvanica* (Red berry)  
*Aster laevis*



*Lactuca canadensis* (no loc)  
*Oenothera biennis*  
*Prunella vulgaris*  
*Solidago verticillata*  
*Hystrix patula*  
*Helianthus integrifolius*  
*Desmodium illinoense*?  
*Elymus canadensis*  
*Muhlenbergia racemosa*  
*Cirsium altissimum*  
*Asclepias syriaca*  
*Lactuca scariola*  
*Solidago rigida*  
*Solidago speciosa*  
*Potamogeton nodosus* (riv)  
*Panicum virgatum*  
*Desmodium illinoense*  
*Agrostis alba vulgaris*  
*Aster novae-angliae*  
*Pycnanthemum flexuosum*  
*Rudbeckia hirta*

71  
*Baptisia borealis*  
*Aster multiflorus* v. *longus*  
*Parthenium integrifolius*  
*Liatris pycnostachya*  
(*Pycnanthemum flexuosum*?)  
*Celastrus scandens*

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In brickyard (open)  
near old (brick)  
factory near  
Panicum virgatum  
Cirsium altissimum  
Rudbeckia hirta  
~~Solidago canadensis~~

" *verticillata*  
*Liatris pycnostachya*  
*Lespedeza capitata*  
*Pycnanthemum flexuosum*  
*Rhus glabra*  
*Solidago nemoralis*  
" *rigida*

*Helianthus - densiflorus* <sup>hirsutus?</sup> <sup>namus</sup>  
*Solidago graminifolia* <sup>low</sup>



*Graptolium polycephalum*

*Cirsium discolor*

*Prunella vulgaris*

*Geranium canadense*

*Helianthus grosseserratus*

*Salix caprea*

*Artemisia salicifolia*

*Rumex crispus*

*Asclepias tuberosa*

*Rubus odoratus*

*Mimulus ritchii*

*Cassia chamaecrista*

*Ceanothus americanus*

*Thalictrum flavum*

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Continuation along road.

*Camelina arvensis*

*Pastura ludoviciana*

*Astragalus canadensis*

*Thalictrum flavum*



Saturday, Apr. 22, 1916

Left at 7 P.M. for Muscatine with W. E. Rogers. Put up at Grand Hotel & arranged for morning trip.

Mr. Samuel Sinnott was at hotel & wants me to speak to his Sunday School class.

Sunday, Apr. 23, 1916.

Drove out at 6<sup>15</sup> to Sandtown.

Found many *Anemone caroliniana* (some blue & some pink, - few white)  
*Draba*, *Viola pedata*, *Carex pennsylvanica*, *Diandria*, *Salix cordata*?  
in flower.

Also - on flats - *Carex* -

Also 3 *Cladonia*s & a *Peltigera*,  
*Bryum argenteum*, *Strichum* & 2 other  
mosses, & on flat - *Polytrichum*

Returned at 11<sup>15</sup> & took 11<sup>25</sup> car for Baybido. Day clear & cool. Walked toward Shunk Calhoun bog from Mayfield.

Found *Cerastium*, *Houstonia*, *Draba*, some *Synthyris*, a few *Lithospermum* common in flower & some. The last & a *Dircaea* were in the open.

*Calluna* was at its best.

Found *Anemone* common in the sandy woods along *Hesperis* bog, - in flower.



Maam City, June 25, 1920, Friday  
Mr. Wilson's men drove me to bridge  
S. E., on road going E. through middle  
of sec. 12.

I found a fringe of trees & shrubs all  
along Lime creek, - only a narrow border.

Near the bridge I picked up following:

*Galium boreale*, fl. - stem.

*Rosa* fl. - "

Vine bark - fr. - edge of border thicket

*Ribes* - river fl. " " " "

*Angelica* - fl. & fr. " " " "

*Heracleum lanatum* fl. & fr. " " " "

The territory N. & S. of road & E. of  
Lime creek. is a flat, somewhat  
undulating low ridge. The low cuts all  
along (they are paving the road) show  
that 1-2 ft. below the surface (under soil)  
there is a mass of gravel, small  
boulders (mostly under 6 in. in diam.) and  
water-worn fragments of rock. It looks  
like water laid stuff.

This was all prairie.



On low ground in Big Slough  
along road found *Phlox*  
*maculata* in fine flower.

(The day is cloudy, windy, cool,  
& promises rain.)

In creek just S. of road I  
dredged *Sphaerium* from sandy  
places with mud film (see spec.)

The creek valley proper (i.e. the little  
Big Slough creek) narrows with  
mud bars & there are big  
light colored boulders in compact or  
loose.

There is also a very low ledge  
of chipping limestone on  
W. side - small.

Found *Stellaria longifolia* (fl.) in  
low place N. edge of road, <sup>near</sup> bridge.

Found *Pinguicula heterophylla* in  
streamer from drain N. of road, near

*Vandusia* is also abundant here.

Saw *Elodea* in creek below  
bridge.

*Lycopus simulans* (fl.) is also common here.

Right at edge of pool N. of bridge:

*Sagittaria latifolia* fl.

*Potamogeton* - fl.

*Eleocharis palustris* fl.

*Ranunculus flammula* fl.

*Acorus californicus* fl.

Fine swampy grass fl.

*Sium* - fl. (leaves) -

*Mimulus ringens* - fl.

*Pentstemon* - fl.

The creek here is in narrow channel between  
banks 4-5 ft high, & no border flats (lower).  
It is a meandering stream.

A little farther up *Elodea*  
beds appear & here I also found:

*Elodea* - 1 in fl. stand? short

*Veronica angustata* - fl.

*Carex vulpinoidea* - fl.

From  $\frac{1}{2}$  to  $\frac{3}{4}$  mi. N. of road the west  
"bluffs" are reduced to a gentle slope so that  
one cannot exactly locate the line.

The slight swell to left was prairie

& still shows:

*Cirsium Hillii* bud.

*Lobelia spicata* fl.

*Reboulia* - fl.

*Helianthus scaberrimus* fl.

*Linum catharticum* fl.



*Phlox pilosa* fl. (res)  
*Achillea millefolium* fl  
*Poa compressa* fr  
*Zygadenus* — fl.  
*Thalictrum dasycarpum* fl.  
*Saxifraga hirculus* lf.  
*Juncus tenuis* fr. - path  
*Helianthus scaberrimus* lf.  
*Hordeum jubatum* fr  
~~Red top~~  
*Galium boreale* fl.  
*Delphinium bicolor* fl  
*Potentilla canadensis* fl.  
~~Artemisia ludoviciana~~ lf  
*Hordeum jubatum* fr  
*Stipa spartea* fr  
*Lepidium speltum* fr.  
*Amygdalus canadensis* (small)  
*Spiraea salicifolia* lf.  
*Carex festucacea* fr  
*Euphyasia corollata* fr & fl  
*Thymus pubescens* fr  
*Asclepias syriaca* lf  
*Monarda mollis* lf.  
*Poa pratensis* fr.  
*Sisyrinchium aurea* fr.  
*Artemisia dracunculoides* fr  
*Anemone canadensis* fl  
*Tridactylum barbatum* fl  
*Fragaria virginiana* lf  
*Veronica virginica* lf  
*Aster multiflorus* lf

At point where stream again enters sec.  
 1 - the banks are now only 1 or 2 ft high  
 & the stream is smaller.

All of that part to this point which  
 was once swampy (& hummocks are  
 abundant) has been drained & is now  
 pastured.

*Hordeum jubatum*, *Poa compressa* &  
*Trifolium repens* are now very abundant  
 all over this & hence & there native  
 swamp plants are found.

The gently rising prairie to west  
 is now under cultivation & only along  
 fence is native flora found, - or  
 strays into field.

North of road & in first 40 a. the  
 native flora is not disturbed, though the  
 place is drained. Hay!

In this part *Thalictrum dasycarpum* &  
*Phlox maculata* are most conspicuous.

I found following in this patch:  
 (not all named)



*Thalictrum dasycarpum* fl  
*Phlox maculata* fl.  
*Spirea obovata* fl. mostly along road  
*Hieracium pulchellum* fr. <sup>mostly along road</sup>  
*Pentstemon redovids* fl.  
*Cicuta maculata* (fl.) <sup>more</sup> <sup>comp.</sup>  
*Poa pratensis* fr. <sup>along road</sup>  
*Cyrtus simulii* fl.  
*Acorus calamus* fl.  
*Lythrum alatum* fl.  
*Olethraea halimifolia*  
*Junonia* - *tenis* ?? fr. - very com.  
*Trifolium hybridum* fl. - along road  
*Potentilla* - fl.  
*Galium* - fl.  
*Carex vulpina* fr. very com.  
*Carex* - fr. com.  
*Red-top grass* - see spec.  
*Carex* - fr.  
*Lullula halimifolia* - fl.  
*Eleocharis acicularis* fl.  
*Callitriche alba* fl.  
*Polygonum* - fl.  
*Solidago* - fl.  
*Solidago* - ? - fl.  
*Salix* - *erectus* ?  
*Phlox pratensis* - fr. mostly rare  
*Time* *green grass*  
*along* *plantigrass* fl.

A  $\frac{1}{2}$  of a mi N. of center of sec. 1  
 east of fence tract is drained  
 but is not pastured. Here on <sup>(as elsewhere)</sup>  
 drained part a good many prairie  
 plants occur. From (see list):

*Glycyrrhiza lepidota* fl.  
*Phlox pilosa* fl.  
*Achillea millefolium* fl.  
*Zygadenum* - fl.  
*Allium canadense* fl.  
*Lobelia spicata* fl.  
*Krisia angustifolia* - old fr.  
*Thalictrum dasycarpum*  
*Anemone pennsylvanica*  
*Veronica virginica*  
*Carex* (*gustata* ?)  
*Amphispiza bilineata* fl.

In the very boggy place along  
 creek tributary:

*Eupatorium perfoliatum* fl.  
*Polygonum* - fl. (same as below)  
*Carex vulpina* fr.  
 " 2 sp. - fr.  
*Scirpus atrovirens*  
 2 grasses.



Here I found

*Zypha latifolia* L.

*Calthem* *Calthem* *Calthem*

Ensalada de Frijoles

*Carex* (type - long narrow fr.) - very com.

Grass - hard top - very common

2-2-1-1-1

*Pedicularis lanceolata*

*Pentstemon* woods (cf. -

cases (like men)  $\frac{1}{2}$

*Lychnis viscaria* L.

Acta palii palii 9/1

Salix - nana var - Stanton, Lewisville

capex + cyclin from light

Grass - white - (old) type

*Cicuta occidentalis* Lind.

Prunus - like in pr. l.

*Agrostis latifolia* L.

2/ *Penicillium* cf. *outletus* *Trin. protuberans*

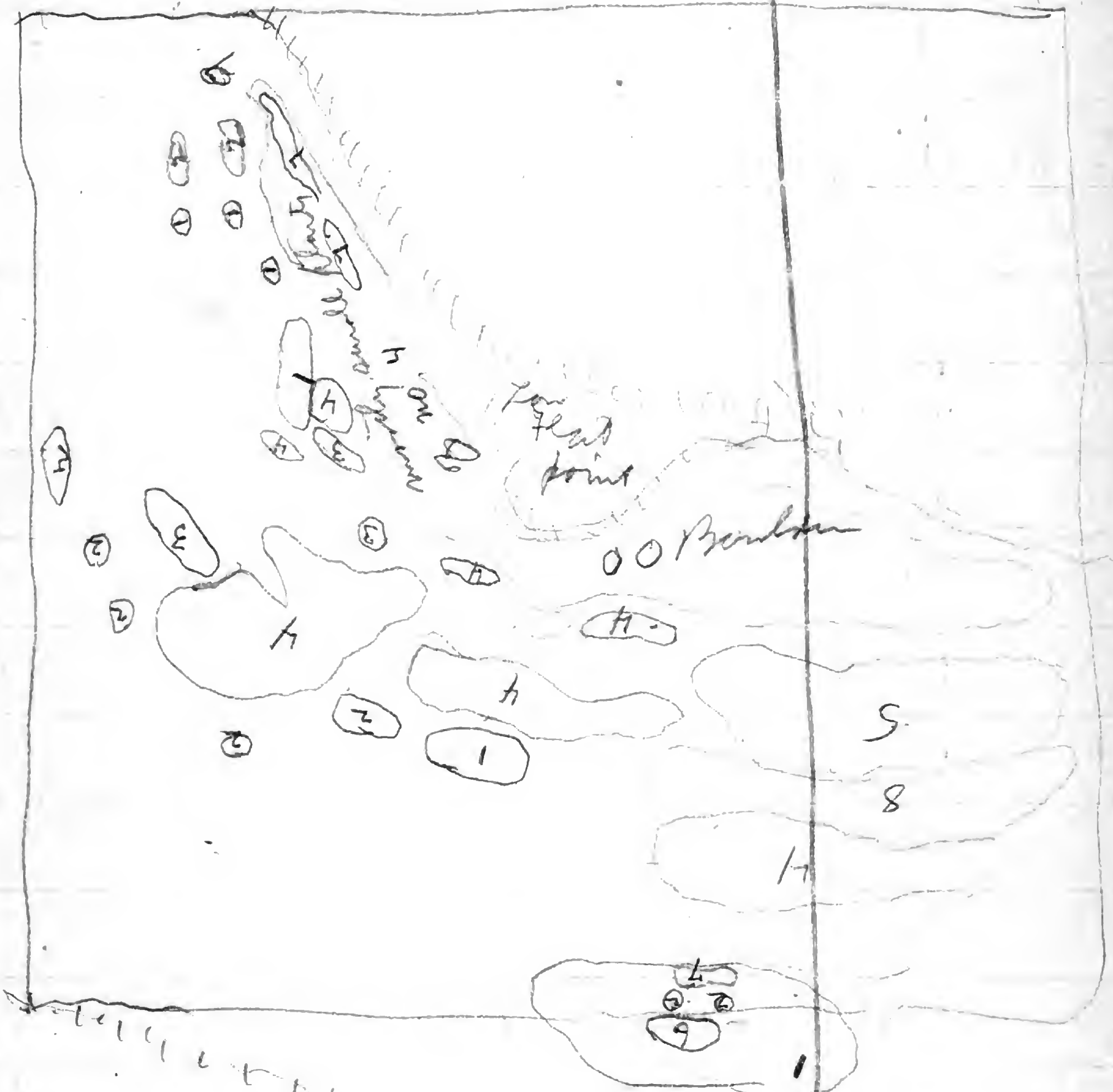
*Ocrops palmatus* - *palmatus*

*Scutellaria* — H

Heimann? 1 fr

*Sium cicutaefolium* L.

The other three in list are new  
Academy - particular in number  
known.

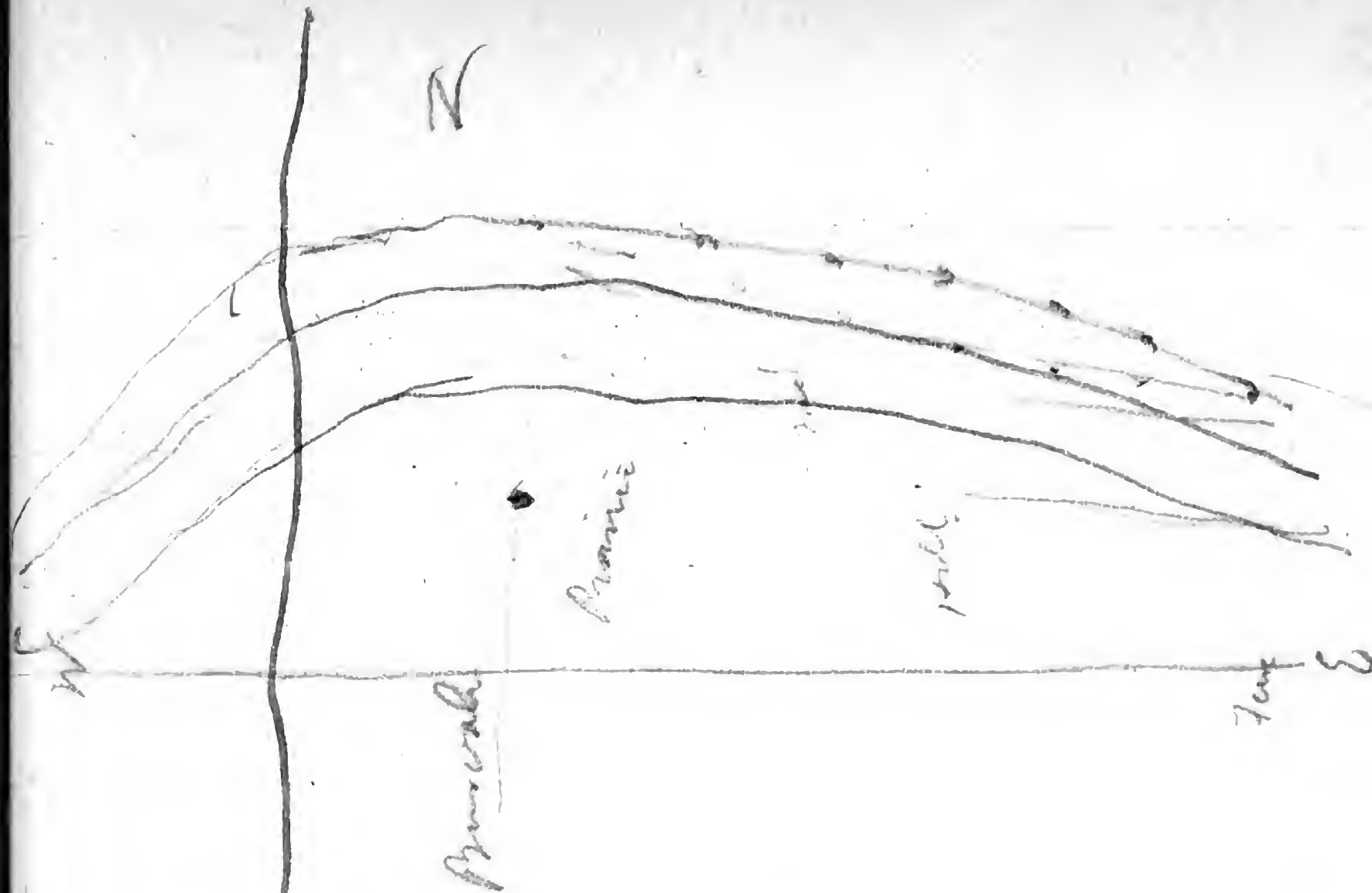


1 = dark blue yellow low green  
2 = aspen ridge  
3 = yellow ridge  
4 = cover with narrow dark fr. - low plants  
5 = white yellow green  
6 = cover - only 2 old plants - small  
7 = aspen  
8 = from with greenish fr. in 40 A with 2 fr.  
1000 ft. elevation 3 of same place



My prairie patch E. of RR

- Panicum Scrib.* fr.  
*Phlox pilosa* fl. white + red.  
*Achillea millefolium* fl.  
*Helianthus scaberrimus* fl.  
*Stipa spartea* fr.  
*Carex flacca* fr.  
*Andropogon alba* fl.  
*Poa trivialis* old fr.  
*Oenothera biennis* fl.  
 10 *Delphinium bicolor* fl. + bud.  
*Thalictrum dasycarpum* fl.  
*Salix humilis* fl.  
*Aster multiflorus* fr. fl.  
*Aster multiflorus* fr. fl.  
*Elymus canadensis* fl.  
*Monarda mollis* fl.  
*Monarda mollis* fr.  
*Nitella lanuginosa* fl.  
*Lepachys pinnata* fl.  
 20 *Ceanothus americanus* fr.  
*Nitella lanuginosa* fr. + fl.  
*Listria scabra* fl.  
*Solidago nemoralis* fl.  
*Carex flacca* fl.  
*Cyperus arvensis* fr.  
*Physalis pubescens* fr.  
*Potentilla anserina* fl.  
*Asclepias syriaca* fl.  
*Eryngium yuccifolium* fl.  
 30 *Eryngium yuccifolium* fl.  
*Lobelia spicata* fl.  
*Cornus rugelii* fl.  
*Veronica virginica* fl.  
*Petalostemon purpureus* fr.  
 " *callicarpus* fr.  
*Cirsium discolor* - white



- 37 *Kuhnia verticillata* fr.  
*Solidago rigida* fl.  
 40 *Agrostis canadensis* old fr.  
*Cacalia tuberosa* fl. bud.  
 " *top* fr. *Poa trivialis*?  
*Andropogon scoparius* fr.  
*Aster sericeus* fl.  
 45 *Poa trivialis* fr.  
*Viola pedatifida* fl.  
*Galium boreale* fl.  
*Antennaria canadensis* fl.  
*Elymus canadensis* fl.  
 50 *Lilium canadense* fl. + bud.  
*Achillea millefolium* fl.  
*Pentalis angustifolia* fl.  
*Andropogon scoparius* fl.  
 55 *Helianthus scaberrimus* fl.  
*Cornus rugelii* fl.  
*Allium canadense* - bulb only.  
*Lilium philadelphicum* fr.  
*Eryngium* - fr.  
 60 *Asclepias syriaca* fl.  
*Solidago canadensis* fl.  
*Polygonum* - fl.  
*Helianthus scaberrimus* fl.  
 65 *Helianthus scaberrimus* fl. } not prairie



*Asclepias incarnata* beds south

*Helianthus* ground below

~~*Helianthus* ground below~~

In the field just below Magowan's  
new road across Big Hawk  
there is a fine patch of  
*Polygonum amphibium* (smooth) in  
full flower

The fine *Potamogeton*, in very  
good fruit, is also abundant



July 4-1920.

It rained last night, & this morning  
& ground is quite wet. It has not  
been dry here. Arrived in morning by C. & M. Rd.

I took car for Highlands at  
about 11 am.

Started in the upland woods  
S.W. of Big Spring in S.W. part.  
At edge (just off Kentucky Ave)  
in open place are a few main  
plants: *Helios helios* (w) in fl.,  
*Thalictrum dasycarpum*

In the thicket there seems to be  
a moist place for I found  
*Campanula aparivoids* in fl. &  
*Lilium canadense* in bud. Yet  
there is no sign of *Gay's* *Thalictrum*, -  
its dear upland woods (thicket)  
with *Pop. tremula*, *O. elliptica*?  
*Cornus paniculata* (fr.), *Corylus am.*  
a small *O. macrocarpa* - making up the

part of thicket. On the wet  
leaves on ground from many light  
gray <sup>at the end of</sup> *Discos.*, & a few *Aquinas*, & a  
few *Polygonum* *profundum* *crispum* about  
Here is full list in this upland woods:

*Thalictrum dasycarpum* - fl. (not found)  
*Rosa* - fr. sev.  
*Lilium canadense* bud sev.  
*Campanula aparivoids* fl. sev.  
*Corylus am.* lf. com  
*Cornus paniculata* fr. com  
*O. macrocarpa* com.  
*O. elliptica* com  
*Polygonum* *profundum* com  
*Galium* <sup>macrophyllum</sup> *fl.* not rare  
*Rubus* <sup>ellipticus</sup> *fl.* com  
*Sambucus racemosa* fr. com  
*Ampelopsis* *fl.* com  
*Fragaria virginiana* (large) lf. not rare  
*Galium* *virginicum* - fl. com  
*Silphium* *perfoliatum* lf. (also with buds)  
*Thalictrum dasycarpum* fl. (mostly with buds)  
*Carex* *fl.* sev.  
*Eriogonum* *fl.* sev.  
*Pyrus* *fl.* sev.  
*Crataegus* *fl.* sev.  
*Aralia nudicaulis* lf. sev.  
*Salix* *fl.* sev.  
*Solidago* *fl.* sev.  
*Oxalis* *fl.* sev.  
*Cactaceae* *fl.* sev.  
*Campanula* *fl.* sev.



*Desmodium illinoense* fl. com.  
*Thalictrum aquilegifolium* fr. com.  
*Celastrus scandens* lf. not common  
*(Lathyrus) antherifolius* (yellow fls) several  
*Vitis vulpina* lf. several  
*Achillea millefolium* fr. com.  
*Jacobaea intermedia* fr. (yellow fls) sev.  
*Artemisia* sp. fl. sev.  
*Sambucus racemosa* lf. quite com.  
*Agrostis perfoliata* (w) sev. fls. few  
*Desmodium illinoense* fr. quite com.  
*Polygonum canadense* fl. not rare.  
*Osmorhiza fruticulosa* green fr. com.  
*Rhus glabra* small white fls. sev.  
*Lonicera* fr. sev.  
*Smilax acutata* lf. sev.  
*Prunella virginica* lf. com.  
*Hyssopus patula* lf. fl. com.  
*Onoclea sensibilis* lf. (in grassy woods) sev.  
*Sambucus canadensis* lf. sev.  
*Urtica occidentalis* (mottled) green.  
*Liriodendron* - north - lf. sev.  
*Arctium luteum* - lf. sev.  
*Carex* (like *rostrata* but coarse leaves) sev.  
*Polygonum bistorta* lf. sev.  
*Prunella virginica* lf. fr. (w) sev.  
*Tricentropus fluitans* fr. fl. sev.  
*Botrychium virginicum* - mature fr. 1.  
*Apocynum androsaemum* - under rocks open sev.  
*Veronica virginica* open - white open fls.  
*Grass* - fls. few.  
*Erigeron annuus* - fl. - 1 fl.  
*Heuland* - fls. few. sev. fls. open. few.

*Prunella virginica* lf. fr. sev.  
*Anemone virginica* fl. sev.  
*Heuland* - fl. sev.  
*Lithospermum* - fls. open in 2  
*Erigeron philadelphicus* fl. - edge of timber!  
 55 *Prunella virginica* fl. sev.  
*Crataegus mollis* ? fr. sev.  
*Viburnum* - fl. sev.  
*Xanthoxylum* - fr. sev.  
*Q. rubra* - com.  
 70 *Ostrya virginica* - few on upland. fr.  
*Rhus glabra* - fr. - white open sev.  
*Prunella americana* fr. sev. - sev.  
*O. alba* - several.  
*Coma* - fr. - few.  
 75 *Viola pubescens* - lf. sev.  
*Juniperus virginiana* lf. - green.  
*Juncus* - fl. - few.  
*Lupinus virginicus* fl. sev.  
*Sambucus canadensis* fr.  
 80 *Asplenium filix femina* - fr. sev.  
*Allium tricoccum* fl. sev.  
*Desmodium* - broad leaves - fr. - several.  
*Marasmius* - red brown  
 white.  
 85 *Helicella* - fr.  
*Campoplex* - fr.  
*Osmorhiza longistylis* - fr.  
*Clay* - long, slender - fr. in big tufts.  
*Phytolacca leptostachya* - fr.  
 90 *Eupatorium purpureum* - fr. - few.  
*Nymphopora occidentalis* fr. fls.  
*Anemone* - fr. fls. sev.  
*Rhus occidentalis* fr. sev.  
 95 *Cypripedium pubescens* fl. sev.  
*Crataegus mollis* fr. sev.  
*Erigeron philadelphicus* fl. sev.  
*Viola pubescens* lf. " "



On Bluffs & Banks (only) along S.W.  
side of Mary Slough:

*Q. macrocarpa* com  
*Pop. tremuloides* com  
*U. coccinea* com  
*Ostrya virginica* com  
*Prun. virginiana* com. & *E. racemosa*,  
*Vitis vulpina* - var.  
*Asplen. vulgare* fr. several fr.  
*Corylus americana* com.  
*Ribes flouidum* fr. (20) sev.  
" *cyathoides* fr (green) com.  
*Lonicera* (yellow) " com  
" (red) " if you mean  
*Gonolobus virginicus* - if you mean  
*Cornus (broussin)* - just fr.  
*Cystopteris bulbifera* +  
" *fragilis*? fr.  
*Azaron. acuminata* fl. not rare.  
*Sanguinaria*  
*Asplen. platyneuron* - 2 fr.  
*Zizia aurea* - bud.  
*Ribes rubrum* fr. (intended?) the other  
*Asplen. virginicum* fl.  
*Lappula* - blue - fl & fr.  
*Trifolium repens* (common) fl.  
*Cirsium* - 2 fr.  
*Castium triflorum* - fl.  
*Cerastium* - fl.  
*Polygonum pennsylvanicum* fl.  
*Grass* - fl

*Anemone* - 14  
*Menyanthes canadensis* fl.  
*Celtis occidentalis* - fl.  
*Prunella 5-foliata* fl.  
*Dracopis vesicaria* - fr.  
*Asplen. adnigrum* fl. - 1.  
35 *Crataegus* - fr.  
*Viburnum lentago* fl.  
*Fraxinus v. lance.*  
*Ulmus fulva*  
*Fraxinus nigra*  
40 *Taxodium integrum* fr.  
*Rhus glabra* - fl.  
*Fraxinus nigra* if you  
*Solidago latifolia* fl.  
*Anemone virginica* fl. on rocks - cliff  
45 *Hieracium lincolniae* - fl.  
*Thalictrum flavum* fl.  
*Carex* - long - fr.  
*Staphylea trifolia* fr.  
*Rosa* - fr.  
50 *Asplen. adnigrum* com fl & fr.  
*Polygonatum* - com - fl.  
*Asplen. platyneuron* - fr.  
*Asplen. platyneuron* fl. fr.  
*Asplen. platyneuron* fl. fr.  
55 *Cornus alternifolia* fr & fl.  
*Aralia nudicaulis* - fr.  
*Asplen. platyneuron* fl.  
*Rhus toxicaria* - fl.  
*Celtis occidentalis* - fl.  
60 *Desmodium illinoense* fl.  
*Anemone hepatica* - fr.  
*Prunella virginiana* fl.  
*Ulmus americana* fl.



Openings - a bluff - SW. side Big Spring

- Symphoricarpos racemosa* fl  
~~*Agrostis*~~ *Agrostis* - fr  
*Potentilla missouriensis* fl  
*Lepidium sp.* fl  
*Labium sp.* fl  
*Oenothera occidentalis* fl  
*Polygonum convolvulus* fr  
*Carex* fr  
*Hedera* fr  
 10 *Scutellaria scutellaria* (1 was 5 1/2 ft high)  
*Hemlock* fr  
*Antennaria plantaginifolia* fr  
*Alumina patens* var lf  
*Cheilanthes* lf  
 15 *Petalostemon purpureus* lf br  
*Anemone cylindrica* fl  
*Potentilla arguta* var. fl.  
*Rosa crugosa* - old fr  
     *pentagona* " "  
 20 *Rhus typhina* lf small  
~~*Agropyron*~~ *Rubus*? fl.  
~~*Agropyron*~~  
*Thymus* lf  
*Fragaria* lf  
*Comandra umbellata* lf fr.  
 25 *Ager* lf  
*Ambrosia artemisiifolia* juv.  
*Aster multiflorus* lf.  
*Hemlock* lf  
*Aschlepias* lf  
 30 *Anaphalis* lf  
*Galeum* lf  
*Rosa pratincola* fl  
*Antennaria* lf  
*Petalostemon candidus* lf

- 35- *Antennaria* <sup>*candida*?</sup> lf.  
*Corylus americana* lf.  
*Ceanothus americanus* fl. (just beginning)







*Zizia aurea* fl  
*Bromus* — fr  
*Asclepias virginica* fl (near edge of grove) /  
~~*Asclepias tuberosa* fl~~  
*Erigeron philadelphicus* fl  
*Prunella terrestris*  
*Asclepias tuberosa* fl  
*Polemonium virginicum* fl  
~~*Asclepias tuberosa* fl~~  
*Panicum scribnerianum* fr  
*Polygala senega* fr  
*Geranium maculatum* fr (near edge of grove)  
*Solidago v. angustata* fl  
*Monarda mollis* fl  
*Pedicularis canadensis* fr (old)  
*Poa pratensis* fl  
*Helianthus scaberrimus* fl  
*Cirsium palustre* fl  
*Aster multiflorus* fl  
*Rhus typhina* — fl of 3 years old  
*Potentilla arguta* fl  
*Senecio* — fl  
*Aster sericeus* fl  
*Poa compressa* fr  
*Hebeena* herb fr  
*Lepidium apetalum* fr  
*Trichium lup. - v.* fl  
*Rhus glabra* fl of 3 years, & fl.  
*Asclepias tuberosa* fl  
*Sisyrinchium campense* fr

On the once-cultivated part the  
 most common species are:  
*Asclepias tuberosa* fl  
*Erigeron philadelphicus* fl  
*Aster multiflorus* fl  
*Solidago v. angustata* fl  
*Poa pratensis* fr



July 5<sup>th</sup> Mon. 1920  
 Went through woods S.W. of  
 Big Knoll & added following  
 to yesterday's list:

I then walked along S.W. side of Knoll  
 & adjoining wooded bank, & walked  
 N.W., then crossed to other side &  
 went S.E.

On S.W. side added to Charles & Cluff's

~~Asplenium platyneuron fl. com~~  
~~Equisetum arvense fl. com~~  
~~Erigeron annuus fl. v. common - 2 spec.~~  
~~Asplenium - sp. -~~  
~~Poa compressa fl.~~  
~~Veronica virginica fl. - no~~  
~~Phlox - fr. (arise) tall - 5 flowers~~  
~~Viburnum dentatum fr. (gr) com.~~  
~~Thalictrum flavum with roots~~  
~~Adiantum pedatum fr. - not com.~~  
~~Actaea sp. - fr. - green - several~~  
~~Asplenium tuberosum fl. - few - lower slope~~  
~~Vernonia - very tall - fl.~~  
~~Rubus occidentalis fr. com.~~  
~~Sorbaria grandiflora fl. rather com.~~  
~~Arabis racemosa fl. - several~~  
~~Asplenium 2-phyllum fl. - several~~  
~~Ranunculus acris fl. - lower slope~~  
~~Arum perfoliatum - fr. gr. - several~~  
~~Trillium grandiflorum fl. - few~~  
~~Delphinium sp. fl. - several~~



In swamp, following:  
*Asplen latifolium* fl. com.  
*Cirsium* - lf. fr.  
*Rumex* - fr. edge.  
*Silene perfoliata* - lf. edge.  
*Eupatorium purpureum* - fr. - new.  
*Pedicularis lanceolata* lf. com.  
*Helianthus gramineus* - lf. edge.

leaves -  
 thinn along



On the (larger) prairie openings  
on N.E. side of Big Slough:

*Lepachys pinnata* - bud. com  
*Ambrosia artemisiifolia* juv. Very com.  
*Rubrica eupatorioides* var. - lf. - com.  
*Aster oblongifolius* lf. Very com.  
*Desmodium canadense* lf. var.  
*Aster sericeus* lf. - Quite com.  
*Artemisia ludoviciana* lf. " "  
*Solidago rigida* lf. com.  
*Helianthus scaberrimus* - juv. - com.  
*Praxifera* old fr. - very com.  
*Aristida bartramia* lf. - com.  
*Astragalus caryocarpus* lf.



July 6 - 1920 Tues.

Rained a little (steadily) all forenoon & going out was out of question. Hence decided to pack up and go home.

Left Mason City for Nora Jc. at 12<sup>55</sup> PM.

There is a nice strip of prairie along RR (I believe S. side) between Mason City Jc. and Nora Jc.

I noted:

*Lilium philadelphicum* fl. var.  
*Coreopsis palmata* fl. not uncommon.  
*Brauneria pallida* fl. com.  
*Helianthus scabra* fl. com.  
*Petalostemon canadensis* fl. very com.  
*Asclepias tuberosa* fl. very com.  
*" syriaca* fl. few  
*Cirsium Hillii* fl. - 2 or 3 fine ones.  
*Hesperis matronalis* - old fr. very com.  
*Achillea millefolium* fl. com.  
*Silphium laciniatum* fl. several  
*Eragrostis canadensis* fl. com.  
*Centaurea maritima* fl. com. low plants  
*Convolvulus sepium* fl. com.  
*Ceanothus am.* fl. com.  
*Amorpha canescens* fl. very com.

*Hemlockia hispida* old fr. com.  
*Salix humilis* lvs - very com.  
*Thalictrum dasycarpum* fl. - not uncommon  
*Rumex crispus* fr. - com.  
*Desmodium canadense* fl. few fl. com.  
*Delphinium bicolor* fl. - not infrequent  
*Asclepias tuberosa* fl. var.  
*Perfoliarium virginicum* fr. several  
*Aster multiflorus* fl. com.  
*Prunella angustifolia* fl. - not rare  
*Solidago rigida* - fl.

Waited at Nora Jc. until 2<sup>30</sup>.

at Nora Jc. found a small (ragless?)  
*Cotula* very abundant along RR  
near lunch room.

at Nora Jc.:

*Urtica dioica* fl. -  
*Hadrum rubra* fr.  
*Prunella americana* fl. very com.  
*Delphinium bicolor* fl. very com.  
*Oxygraphis virginiana* fl.  
*Morone (drooping)* fl.  
*Perfoliarium virginicum* fr.  
*Ceanothus am.* fl.  
*Silphium laciniatum* fl.  
*Salix humilis*  
*Hesperis matronalis* lvs com.  
*Urtica alba* fl. com.  
*Hesperis matronalis* fr.  
*Morone* fl.  
*Antennaria dioica* fl.  
*Rumex crispus* fl.



*Campanula medium* fl.  
*Zinnia* *bartramia* fl.  
<sup>mauve</sup> *Althaea* fl. var. fr.  
*Polygonum* fr.  
*Anemone coronata* fl.  
*Agrostis* *stolon* fl.  
*Artemisia* *lucida* fl.  
*Thalictrum* *dasycarpum* fl.  
*Desmodium* *virginicum* fr.  
*Galium* fr.  
*Tagetes* *erecta* fl.  
*Leptodermis* - yellow fl.  
*Prunella angustifolia* fl.  
*A. alpestris* *tenuosa* fl.  
*Rosa* *pratincola* fl.  
*Ampelopsis* *quinquefolia* fl.  
*Vitis vulpina* - lf.  
*Asparagus* *virgatus* lf.  
<sup>Sponsea</sup> *Campanula*? - small - fl.  
*Tradescantia* - fl.  
*Elymus canadensis* fl.  
*Asparagus* (pink) fl.  
*Corynephorus* *patula* fl.  
*Galium boreale* - fr. & fl.  
*Cnicus* *pulegioides* lf.  
*Solidago rigida* lf.  
*Potentilla* *anemone* fl.  
~~*Polygonum canadense* fl.~~  
*Euphorbia* *presens* lf.  
*Leptodermis* *perfoliata* - lf. & fl.  
*Leptodermis* *apiculata* fr.  
*Rudbeckia* *laciniata* lf.  
*Carex* *pedunculata* fr.  
*Rhus* *toxica* lf.



Expenses - Oaklan Mills, Kedron, etc.

Nov. 7 - Minto, Oaklan Mills	.20
Supper - Ft. Madison	.55
Lifecover & rode	.25
Nov. 8 - <sup>24. Madison</sup> Hotel 1.50 Breakfast 30	1.80
Dinner - Farmington	.50
	<u>\$3.30</u>

Sunday, Nov. 7, 1926

Left Iowa City (with M. J. Garner & truck) at 5<sup>45</sup> A.M. and drove on Road 40 - via Riverside, Pinworth, and Mt. Pleasant to Oaklan Mills.

At Oaklan Mills - Roy Archibald custodian Park

At Oaklan Mills - Took up plants:

*Quercus imbricaria* H  
*Smilax* — III  
*Quercus bicolor*? (macrocarpa) III.  
*Symphoricarpos* (coralberry) II  
*Acer saccharinum* II

Collected a few fungi, and some terrestrial mollusks. The little State Park here is below the bridge, but Archibald says the Board has some arrangement with the Trustees of the Cemetery by which they gain control of the bluff above the bridge just below the cemetery, which is a top of the hill.

A fellow came along, who said he was employed by the State, and



At Montrose I collected a few shells.  
 We drove to Montrose, and  
 just S. of town we took plants.

*Asimina triloba* (Pawpaw) - 17.

They were along lower slope (or  
 bench) above the new wagon road.

We remained here until nearly  
 dark & then drove to Ft. Madison.  
 Put up at The Antlers Hotel,  
 Room 63.

I spent the evening in arranging  
 my materials (repacking), and  
 in writing notes.

The day was warm & more or  
 less cloudy, with some sunshine  
 and no rain.

Nov. 8, 1926 - Monday.

Left Ft. Madison on No. 3 for  
 Donnellson & Farmington at 7<sup>00</sup> A.M.

Stopped at the Maule Black Jack  
 dunes. Noted the following: (all c.)

<i>Eragrostis nutans</i>	<i>Helianthus multiflorus</i>
<i>Panicum virgatum</i>	<i>Eragrostis pectinacea</i> & sp.
<i>Andropogon scoparius</i>	<i>Eragrostis altissima</i>
<i>Gnaphalium polycephalum</i>	<i>Andropogon furcata</i>
<i>Sporobolus cryptandrus</i>	<i>Ambrosia trifida</i>
<i>Artemisia canadensis</i>	<i>Quercus macrocarpa</i>
<i>Helianthus magnus</i>	" <i>imbricaria</i>
<i>Plum sp.</i>	
<i>Symphoricarpos</i> (red)	Found all these at
<i>Panicum Scribnerianum</i>	the dunes & woods.
<i>Cirsium discolor</i>	<i>Rhus glabra</i>
<i>Verbena stricta</i>	<i>Lithospermum gracile</i>
<i>Scrophularia leporella</i>	<i>Asparagus officinalis</i>
<i>Momordica charitaria</i>	<i>Desmodium illinoense</i>
<i>Lepachium virginicum</i>	
<i>Helianthus scaberrimus</i>	
<i>Aster crinitus</i> (red fr.)	
<i>Impatiens</i> (red fr.)	
<i>Oenothera biennis</i>	
<i>Lupinus albus</i>	
<i>Chenopodium leptophyllum</i>	
<i>Cyclops atriplicifolius</i>	
<i>Eriogonum canadense</i>	
<i>Ambrosia psilostachya</i>	

East of my old house.  
 This is on road turning off S. from small west  
 cemetery.



It began to sprinkle, but we started for Donnellson and Farmington, and drove all the way in a drizzle, which became heavier as we reached the county line.

Just near the W. edge of Lee Co. we came upon a fine patch of *Hypericum prolificum* and took about 17 of them. Also fine fungi. I also collected a few fungi. This is fine timber country, and I must work it more.

At Farmington I saw Mr. [unclear] as the bank, and also who promised to serve on Committee to call on Governor. We drove west to Keosauqua, much of the way over anful detours. We drove on to Fairfield and Washington, and reached Iowa City at 8:15 P.M.

Put in nursery Nov. 9, 1926

<i>Hypericum prolificum</i>	<del>III</del> <del>III</del> <del>III</del> N. of Donnellson
Red Cedar	N. of Keokuk <sup>Summitville</sup>
Swamp Wh. Oak	N. of Keokuk
Shingle Oak	N. of Keokuk
Post Oak	N. of Keokuk
Coral-bum	N. of
Shingle Oak - 2nd Madison	
"	N. of Donnellson III
Sapaw - Montrose	<del>III</del> <del>III</del> <del>III</del> III
Swamp Wh. Oak - Summitville	
Hard Maple	" - Oakland
Q. imbricaria	"
Coral-bum	"
Wh. Oak ? bluffs	"



Tracer - 1 fare \$3.11

1926

Nov. 17,

Expenses - Tracer, Manson, etc.

RR. to Cedar Rapids	\$ .99
Nov. 18 Taxi Tracer	.25
RR. to Parkersburg	1.30
Breakfast "	.45
RR. to Manson	3.34
	<hr/>
	6.33
RR. to Sioux City (Ill. Cent)	3.20
RR. to Lister (Gr. Northern)	2.66
Breakfast - Lister	.45
	<hr/>
	5.87
RR. to Ft. Dodge	.30
Lunch Ft. Dodge	3.60
RR. to Waterloo	<hr/>
	\$ 22.41
Transfer - Waterloo	.35
RR. to Cedar Rapids	1.90
	<hr/>
	.99
RR. to Iowa City	<hr/>
	\$ 25.65
	<hr/>
Tracer RR	.99
Taxi	.25
RR	2.12
Taxi	.25
	<hr/>
	\$ 3.60

as Tracer I met of the Masonic Branch of Custodians. He said that in their section (not very rough) the timber lands held fertility longer than prairie

Wed. Nov. 17, 1926

To Tracer, Manson, Sioux City & Lyon Co. Left Iowa City at 1:30 P.M. for Cedar Rapids, where I will meet Paul Huston.

We started for Tracer at 3:00 P.M. and drove to Newhall, Keosauqua, Payson and Tracer. It snowed a little all the way and the roads were rough.

We reached Tracer at 6:30 and had dinner with a bunch of local members (Eugene, the same Dr. — — —) at the hotel.

At 8 o'clock we went to the High School, where a goodly number of people were gathered. Paul Huston spoke briefly, the Cedar Rapids Lyral Walton quartette gave some good music and I talked an hour on the general purposes of the League.

We sat up until 2:00 A.M. in the doctor's office.



Thursday, Nov. 18, 1926

Was called at 4:30 AM, and the mail man took me to the C. & N.W. Ry station a mile from the hotel. A veritable blizzard was raging and the snow was blown about in swirling clouds. The train for Parkersburg was here at 5:24, but did not come in until 7:00 AM. Reached Parkersburg at 8:00 o'clock. Had breakfast and took train for Marion (Ill. Cent. Ry) at 9:52. Was met (at 12:46) by young Mr. Haney and taken to the home of his father and mother, - both very interesting people.

At the evening meeting - Campers, Mrs. Whitley & I, & Mr. Kremer, President of the Marion Chapter talked, & Sup't. Ladd presided (& talked).

A good, earnest meeting. Young Haney told me that his father knew little about the League, but after the meeting he showed extreme interest.

We sat up again until 1:30 AM. - for some time with Mr. & Mrs. Haney. He was full of questions.

The afternoon and evening were quite moderate though it was cloudy. Much less snow fell here.



Friday Nov. 19, 1926.

Left Mason at 4:49<sup>+20</sup> AM.  
It is still cloudy, but no snow  
is falling.

I fell asleep and awakened at  
Le Mars.

Out of Le Mars we follow the  
valley of <sup>the</sup> ~~the~~ It is  
narrowly fringed with timber. To  
the right are rounded swells (not  
abrupt) of Kansan. Beyond the  
rather shallow valley to the left  
the <sup>rather</sup> low but massive hills are the  
same. The whole topography  
is rolling Kansan.

Merrill lies in the valley wholly.

Beyond Merrill the valley narrows &  
nearly there is a larger patch of woods, -  
on in valley, which is rather flat.  
There are big clay banks on right  
hand side, - loess in far part of  
at Sioux City

Was met at station by Bolton  
and taken to his home. His  
wife is a doctor and has practiced.  
They have two little girls. The  
little one, Josephine, entertained  
me quite a bit. I did not meet  
the other, who is in school.

We drove out to Joy creek &  
look over the ground a little.  
On the return we drove over  
into Nebraska where the local  
clay has 110 ft. of sandy  
flat & lake front. This promises  
to be quite an enterprise.

In the evening I attended the  
Abn-Baker Shrine ceremony. A  
large number was present, among  
them 150 from Sioux Falls.

Spent night at Bolton's home.  
Bolton & his two friends agreed to boost  
the park idea for Joy creek.



Sat., Nov. 20, 1926

Left at 5:30 am. for Lester via the Great Northern. No snow has fallen. The wind is sharp but it does not seem to be as cold as yesterday.

Dark, and I went to sleep. At and N. of Perlman the topography is quite gently rolling Kansan.

Towards Dorn and at Dorn there are large gravel pits. Alford is right on this gently rolling Kansan plain.

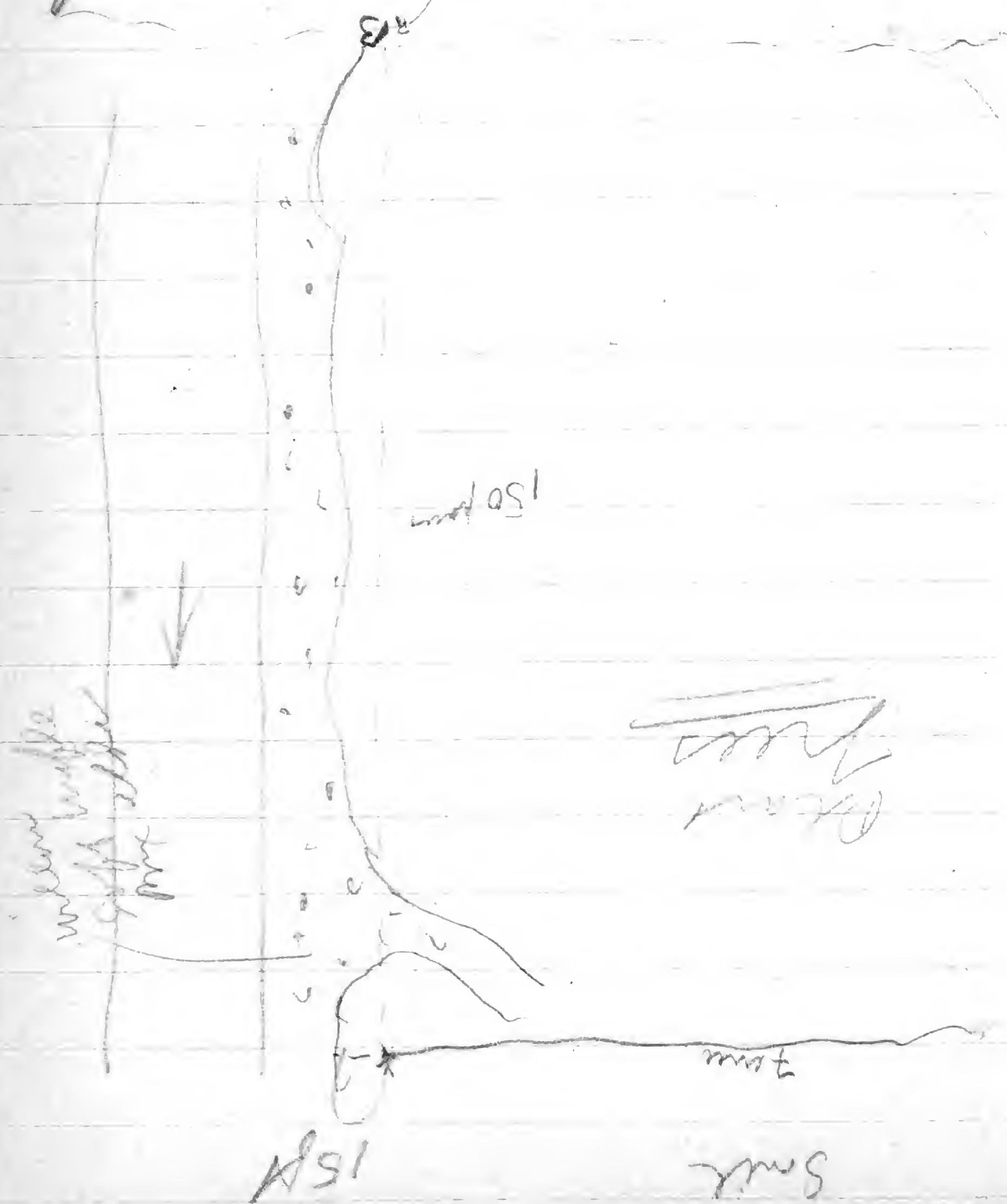
A little more snow northward. This rolling Kansan continues to Lester.

Reached Lester at about 8 o'clock & went to restaurant for a little bite of breakfast. I then tried to telephone to L. O. Severson, custodian of Gilchic Manitou Park

at Larchwood, but while I was waiting he came into the telephone office. They had a storm here which destroyed communication by wire. Severson is also a county supervisor. He had an appointment at Rock Rapids and asked me to wait at the hotel. I went over there and had a peculiar reception. When I came to Lester I looked up the street and noted a "Cafe" sign. I went to the place and had my very light breakfast, & then went to the telephone office. When I came to the hotel I told the proprietor that I would just wait a little while for Mr. Severson. He blurted out that a man looking for accommodation ought to contribute (or words to that effect). He was sure that I took breakfast in the restaurant. He said that Severson had declared that



I made an appointment with  
him (Severson) at the hotel. (I did  
no such a thing as the copy of my  
letter to Severson will show.) One  
of them told a whopper.



N

Plan  
1200 ft

Plan

Plan

Plan

1200 ft

1200 ft

8







530 84



↓ River

Farming land.

Farming

Line x -





Swenson returned about 11 am & we started for Larchwood, where we took lunch, and then on to the Gitchie Manitowish Park. There is much more snow beyond Larchwood.

I made sketches of the park (the plants) and found Mr. Swenson very sympathetic. He is chairman of the Board of Superintendents and serves without compensation.

I collected fungi on ash (Red or Green), *Salix amygdaloides*, *S. mucronata*, *Prunus virginiana*, *Acer negundo* and *Lilium americanum*.

Among the trees, <sup>shrubs & vines</sup> I noticed:

<i>Prunus virginiana</i>	quite large - rocks.
<i>Ulmus occidentalis</i>	on rocks
<i>Quercus macrocarpa</i>	stunted -
<i>Glomus americana</i>	on rocks
<i>Fraxinus penns.</i> (?)	on rocks, etc.
<i>Lilium americanum</i>	on rock.
<i>Symphoricarpos occidentalis</i>	rock & prairie
<i>Salix mucronata</i>	lower
" <i>amygdaloides</i>	"
<i>Acer negundo</i>	"
" <i>saccharinum</i>	"

*Vitis vulpina* - lower.

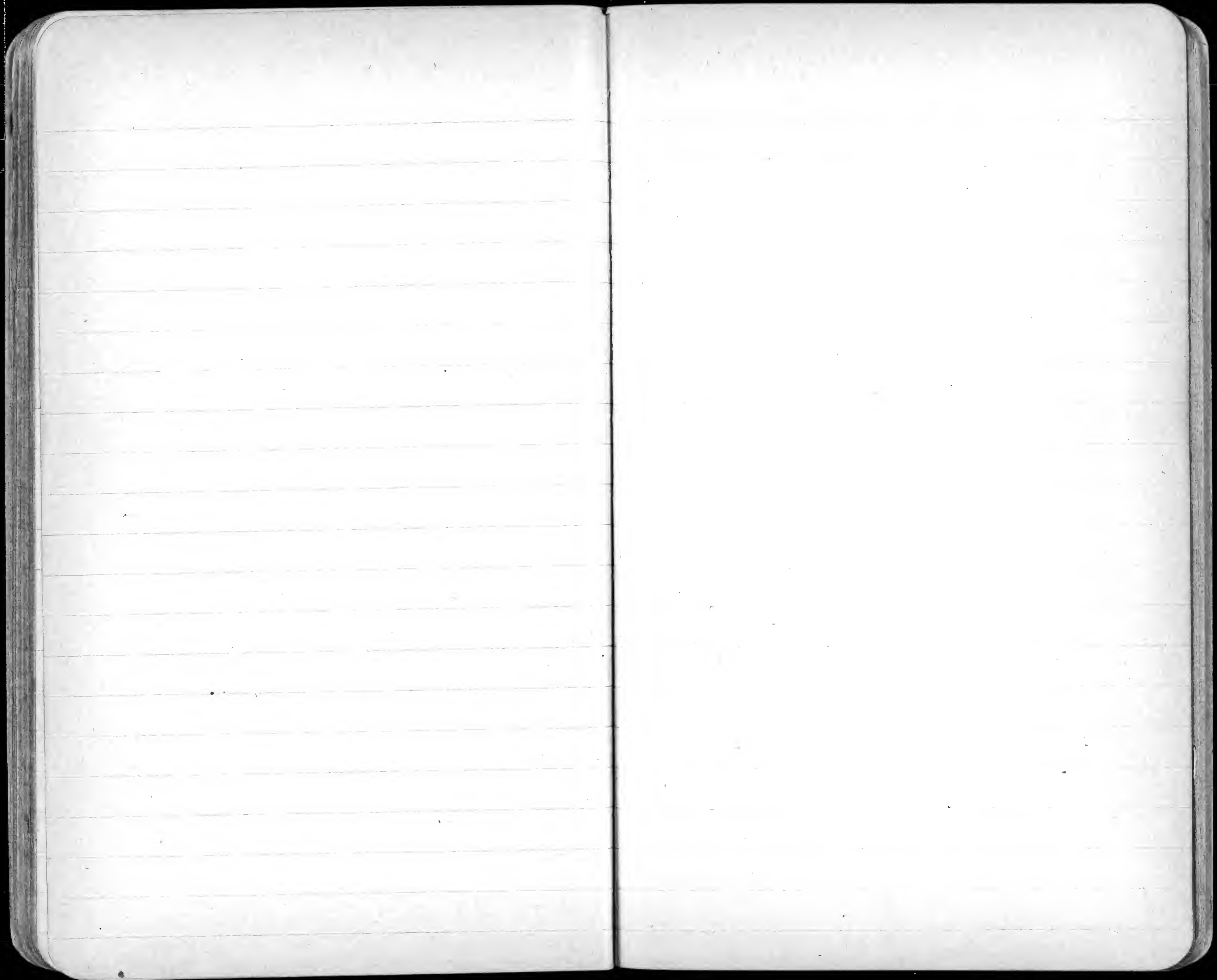
I saw a number of pheasants.

We drove to Rowena. While at station a small flock of prairie chickens flew low & almost over the station. Station Agent said he hadn't seen any for years here.

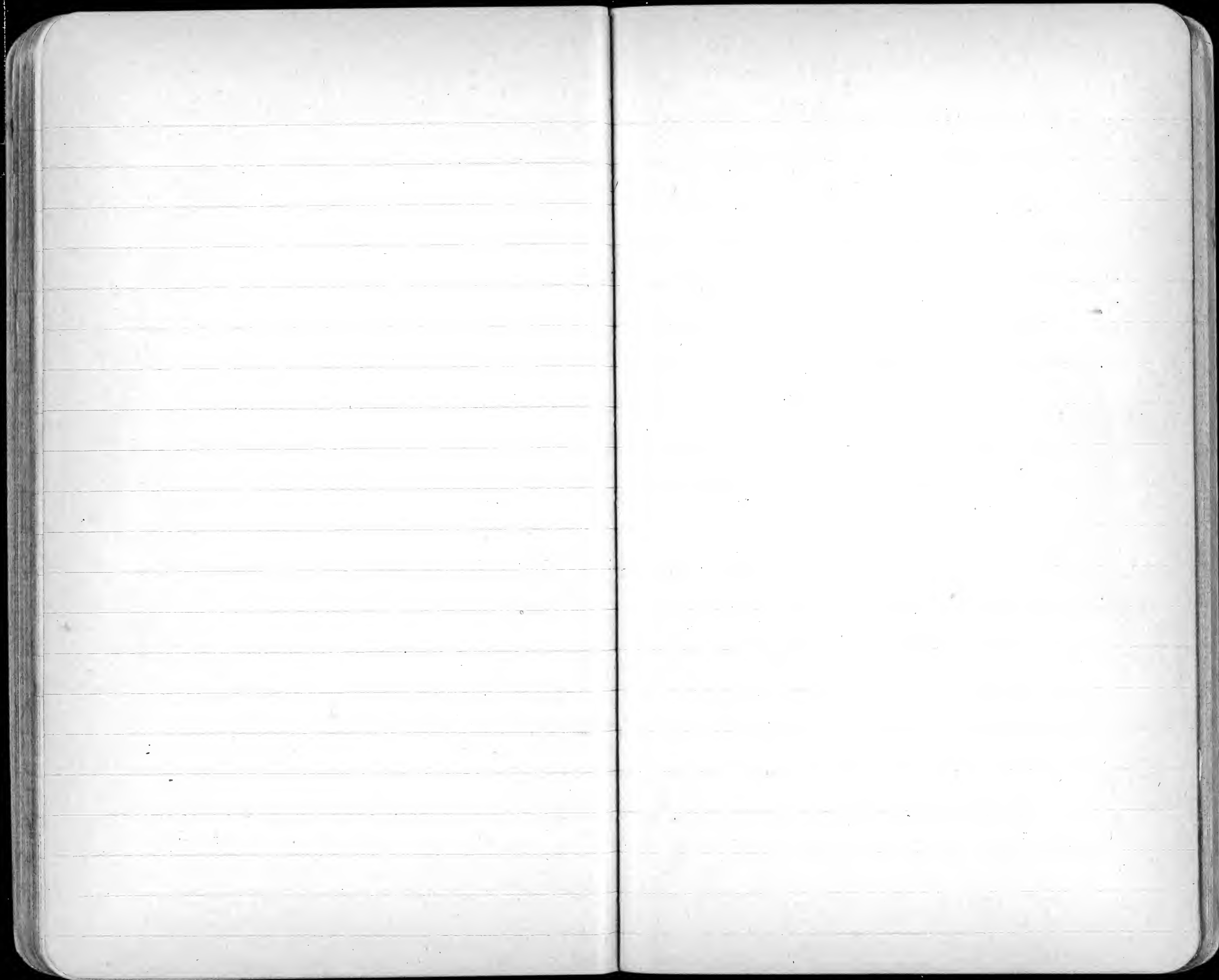
I left at 4:21 for Cherokee and Ft. Dodge.

It has been cold (& getting colder) all day and slight flurries of snow came.

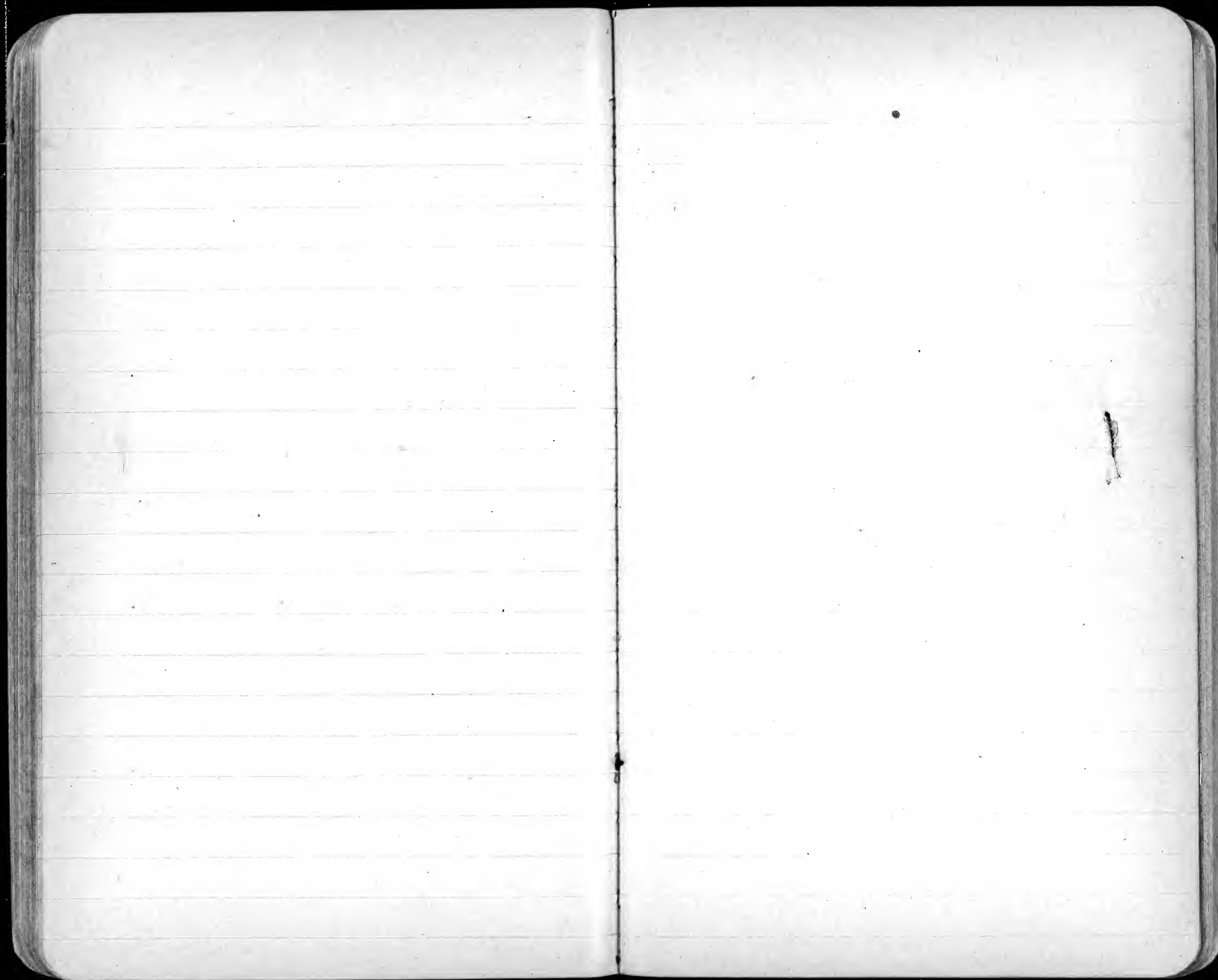














Experiments with leaves & SO<sub>2</sub>  
in Lab.

Secured leafy branches from park.  
Kept them in water from 11<sup>00</sup><sup>am</sup> until  
1<sup>30</sup> PM. before experiment. Aug. 24<sup>th</sup> 15

Placed the leaves in a jar  
(6900 cu. cm.), with 87 parts of SO<sub>2</sub>  
in 1000000 parts of air. They  
were placed in at 1<sup>30</sup> PM, & kept  
in 15 min.

Am. Elm shoot with 3 young  
and 2 older leaves - showed all leaves  
wilted. They wilted first and then  
shrivelled. One of the younger leaves  
was dry & crisp, the others soft but  
wilted.

The Sycamore, *Crataegus mollis* and  
parony showed no effect.

Grass elm and clover leaves treated  
by very strong gas by Dr. Wolschinsky  
began to bleach in about a minute,  
and were killed.

Same day - Aug. 25, - set up  
leafy branches in bottles, sealed,  
as follows (the bottles being  
placed in glass cases

2 3/2 x 26 x 14 1/2 in.) - <sup>between</sup> 11+12  
am.

North case (I) -

Placed in it. 2 bottles of *Crataegus mollis*  
1 " " *Sycamore*  
1 " " *Am. elm*

Introduced 2.85 parts of SO<sub>2</sub> in 1000000  
at 1<sup>30</sup> PM. The tip of young leaf  
of Am. elm. was somewhat wilted.  
At 5 PM. the elm recovered,  
the gas being reduced.

Thursday, Aug. 25

At 8<sup>30</sup> AM. - introduced 2.85  
to 1000000.

At 1<sup>30</sup> the Am. elm was again  
somewhat wilted.

The control spec. looked well,  
(but <sup>in S. case</sup> parony failed because water  
ran too low.)



At 5 PM the strength was increased to 5 to 1000000.

Wednesday, Aug. 25

South case II - prepared same time.

Used 10.7 to 1000000.

Took case off at 6 PM & aired, then introduced 10.7 again.

The gas had been reduced to 1.3 in 1000000.

The leaves were not much affected. The youngest leaf on elm was somewhat curled and wilted.

Thursday, Aug. 26

At 8<sup>15</sup> changed as before, & re-introduced 10.7 as before.

At 1<sup>30</sup> the young leaf on

larger elm short (forked one) is dry at tip and leaf is somewhat curled.

The control specimens - same as inside - look well, but papyrus failed, - water ran out. The south case contains:

1 bottle of papyrus.

2 " of Crataegus mollis

1 " " Ulmus alpinus

At 8 am. Thurs. gas ran to .3

By noon " " " .4

Renewed the same at 5<sup>30</sup> PM.



Thursday, Aug. 26, at 1.45 PM  
put Sycamore (1 larger short)  
pawing leaf, & Crataegus back  
into 1<sup>st</sup> jar (they had quite  
recovered). Then used 101  
parts to 1000000.

Put in at 9 min. of 2 PM. &  
taken out at 21 min. part 2.  
Set them back into jars of  
water. They recovered fairly  
well during the day.

Friday Aug 27

At 7.45 am. Sycamore,  
pawing & Crataegus which  
had been in jar looked well.  
In case I. Introduced 5 to 1000000

From Dr. W.

10<sup>20</sup> am Introduced 5 cc = 35 to M,  
in S. case (II).

10<sup>30</sup> am. Sampled & found 1.1 per M.

11<sup>05</sup> PM. Added 5 cc.

11<sup>18</sup> AM. Sampled & found 3.7 per M.

1 PM. Introduced 5 cc.

1<sup>10</sup> PM Sampled & found 6.5 per M.

2<sup>17</sup> " Introduced 5 cc.

2<sup>47</sup> " Sampled & found 2.8 per M.

3<sup>52</sup> " Introduced 5 cc.

4<sup>22</sup> " Sampled & found 3.7 per M.

4<sup>26</sup> " Introduced 5 cc.

Aug 28  
at 9 am. ~~both~~ samples  
case II & found .4 per M.

Looked at, air & added 3 cc  
(= 2.14 per M.)



Frida - Aug. 27.  
 Case I (North) (Dr. W.) copy  
 Introduced .7 cc at intervals:  
 10.35 am  
 11.11 "  
 1.02 pm  
 2.20 "  
 3.54 "

Case II Left undisturbed  
 Put in 21.4 per 1000 cc. } See  
 Analysis shows .4 } preceding  
 pages.

(Mine)

Added 3 shots of am. am,  
 & put same syringe,  
 Crataegus & prony into  
 jar with 101 parts to M.  
 at 8.04. At 8.19 taken  
 out & put in water.

At 9 o'clock the younger  
 lvs. were somewhat wilted,  
 even the larger ones.

Saturday - 28 (Dr. W. Henry)  
 Case I (North)

Shot in .7 cc. 102:

7.57 am	1.22 am
9.14 "	1.55 pm
10.32 "	2.57 "
12.14 pm	3.30 "

at 4.04 sampled & found 1.5  
 per M. At 4.08 per M. &  
 air in room.

Case II (South)

Intro. 5 cc. at 7.55 am

Sampled at 8.05 & found 5.7 parts per M.

9.09 am.	5 cc	
9.39 "	Sample =	2.1 per M
10.30 "	5 cc.	
11.00 "	Sample =	1.7 per M
12.12 pm	5 cc	
1.19 "	5 cc	
1.49 "	sample	2.2 per M.
1.53 "	5 cc	
2.55 "	5 "	
3.25 "	sample =	2.5 per M.



3.28 Pm. 5cc

4.08 " - open room - air and sun

Aug. 29

Final notes.

Case I - was removed yesterday  
& plants left exposed.

Plants look quite well except  
that Am. elm leaves are somewhat  
wilted, & Crataegus somewhat  
~~curled~~ <sup>curled</sup> and with few brown  
spots.

Case II (South)

The elm looks sick. Leaves  
wilted and more or less curled, -  
the curled edges in some cases  
crisp (dead & dry).

The Crataegus has <sup>many</sup> large  
brown spots & blotches on leaves.  
Leaves scarcely curled.

The paeony looked sick, - after

leaves curled & yellowish,  
lower ones (4) mostly curled  
at edges & these edges crisp  
(dead & dry).

The control specimens, except  
1 paeony & 2 Crataegi in which  
water had failed in bottles, are  
looking well. The elm  
is slightly wilted at tips  
in both specimens, but  
not crisp.

The latest spec. of leaves  
in tumbler <sup>of Am. elm</sup> are looking well  
except for 1 crisped leaf  
& tips wilted.

In older set:

Sycamore - looks well  
Paeony - slightly wilted  
Crataegus - somewhat curled.



The stuff in jar (blue gray  
etc.) is bleached white,

The weather has been:  
Wednesday - 11<sup>30</sup> am. clear  
Thursday - cloud, cold, dark  
Friday - clear but cool  
Saturday - Mostly cloudy.

In all cases the edges of  
leaves were first affected.

Control spec. suffered (esp.  
Am. elm) from escaped gas.

Saved specimens for sectioning.  
From case I

Crataegus; Sycamore, Am. elm

From case II - control at S. case,

Am. elm.

From control N. case

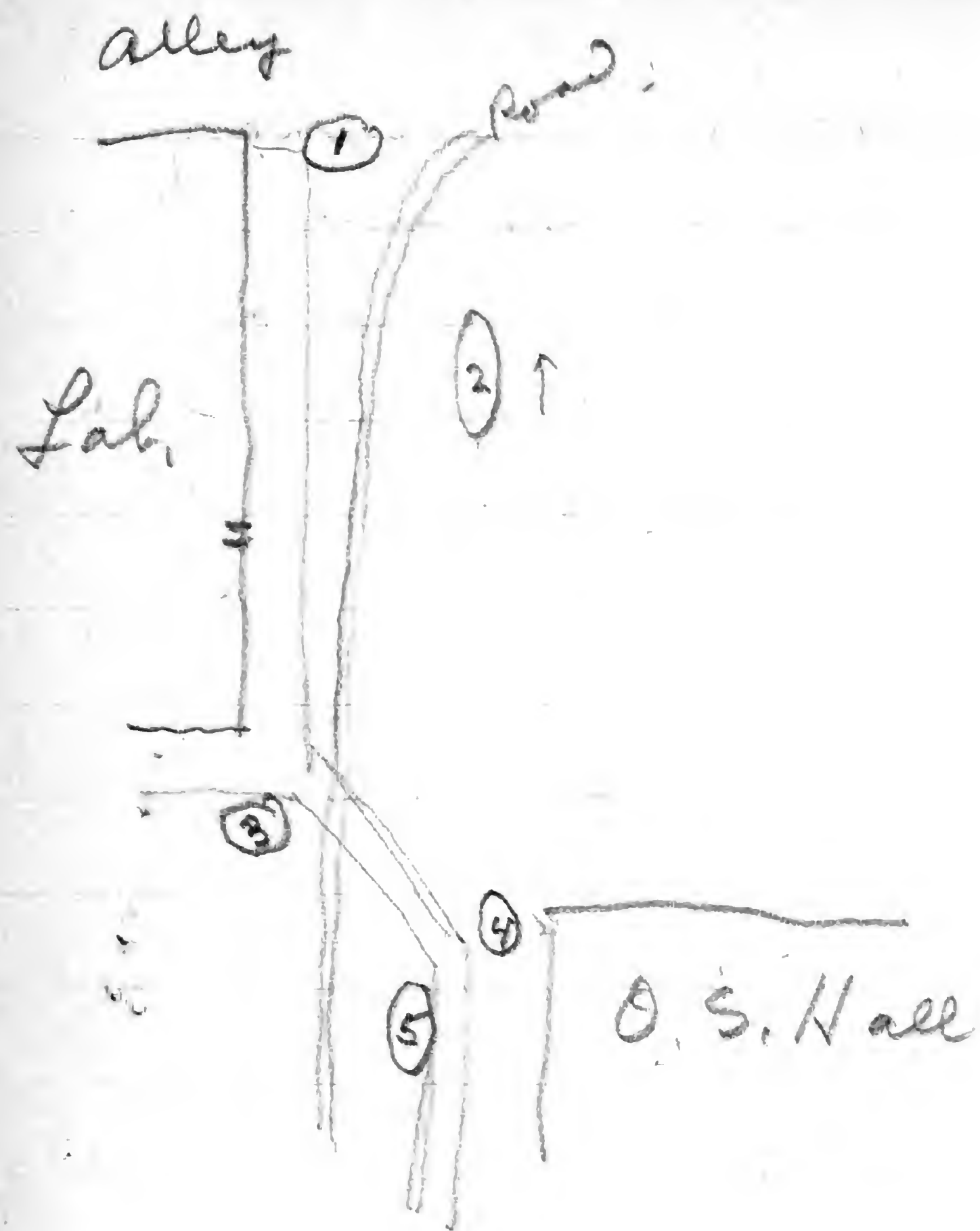
Sycamore, Am. elm.

Crataegus.

In all cases the plants  
in cases gave off water  
which gathered in drops  
and this probably took up  
much gas.

I also examined place  
out of doors where we  
charged tubes with  $\text{SO}_2$ .  
(see next page.)





1- Noticeable effect about 8 ft.,  
about 4 ft. each side of cylinder.  
Plants (all affected):

Dandelion

Blue grass

Foxtail (*Setaria viridis*)

*Chenopodium album*

Young box elder

" am. elm

*Polygonum pennsylvanicum*  
*Hordeum jubatum*

In many cases parts (edges &  
tips) of leaves suffered only,  
where there were more exposed

At 9.00 A.M., Aug. 27,  
sample of air taken  
from Case II (south) and  
found to contain 0.4 P.p.m.  
of  $SO_2$ . The case was re-  
moved, taken outside  
for airing, and re-  
charged with 3 cc  $SO_2$   
(21.4 P.p.m.)

Nothing was done  
with Case I (north).

(supplement)

*Setaria viridis*

Nearly leaves nearly all dead,  
farther away, edges & tips.

3- Over 2 ft. in diam., nearly  
circular (sheltered) (over)





Plants (all affected):

Dandelion

Blue grass

Foxtail (*Setaria viridis*)

*Chenopodium album*

Young box elder

" am. elm

*Polygonum pennsylvanicum*  
*Hordeum jubatum*

In many cases parts (edges & tips) of leaves suffered only. Where they were more exposed, all dead.

2- On blue grass lawn

Nearly 6 ft. from cylinder, which was at S. end. - Wind from S.W. Nearly 2 ft. wide.

Plants:

Blue grass

White clover

Dandelion

*Setaria viridis*

Nearly leaves nearly all dead, farther away, edges & tips.

3- Over 2 ft. in diam., nearly circular (sheltered) (over)



Plants:

*Setaria viridis*

*Polygonum pennsylvanicum*

*Digitaria*

*Dandelion*

41 - 2 ft. in diam.,

Blue grass

*Dandelion*

White clover.

5 - About 5 ft.

*Setaria viridis*

*Dandelion*.

In all cases nearest me  
dead, - others with tips and  
edges dead, + whitish or  
brownish.



## Mason City - 1922

Sep. 16 - RR. to Cedar Rapids	\$ .96
Sep. 17 RR. Cedar Rapids to Nora Jc.	4.07
Nora Jc. to Maunly	.62
Maunly to Mason City	.34
Taxi, Mason City	.30
Breakfast & lunch	.50
Supper	.35
Box of Candy for Kate	1.00
Sodas <sup>10</sup> , gum <sup>10</sup>	.20
Sep. 18 - Breakfast <sup>45</sup> , dinner <sup>30</sup> , supper <sup>25</sup>	1.00
RR. to Cedar Rapids, via Maunly	4.90
RR. Cedar Rapids to Iowa City	.96
	<u>15.51</u>

Mason City - Sep. 16, 1922 Sat  
 Left Iowa City at 9:35 PM.  
 for Cedar Rapids.

Sep. 17, 1922 Sun  
 Left Cedar Rapids at 12<sup>20</sup> AM.,  
 & as the train reached Nora Jc.  
 on time (about 2:14 AM) I decided  
 to go to Maunly & down on the  
 Rock Island to Mason City. The  
 latter train was an hour late,  
 and I reached Mason City at  
 5<sup>00</sup> AM. I went to Joes and  
 took a nap.

Went out to the Big Slough at  
 about 10 AM. I worked first  
 at upper part (my *Cissidium* bed).  
 The Big Slough is very dry.  
 There is no water excepting a  
 shallow pond away down  
 next to the road.

I could do no dredging. I collected



quite a lot of marsh plants,  
and also a few on the banks adjoining.  
The day was cool & mostly cloudy.  
While in the Slough I had a  
visit with the new Biology  
Teacher (High School) who comes  
from Northwood, Minn., and a  
young lady reporter of the Wash.  
City Times-Globe (?)

I found my prairie slope  
N. of Slough & E. of RR.  
pastured & cut, & did not go  
quite to it.

Returned at 6 PM., put my  
stuff away, & just moved car  
for Clear Lake, where I expect  
to see Joe & Kate. It was  
well that I did, for at about  
10 PM. it began to rain, and  
rained all night.

I collected about of *Cirsium montanum* C.  
discolor & *C. lan. latum* - also seeds of *Echinocystis*  
*americana*

Sep. 18, 1922. Mon.

It rained all forenoon, a little.  
It remained cloudy, but quit raining  
and at 12<sup>30</sup> I went out to the Big  
Slough. The rain made little  
difference in its condition, and  
I could do no dredging.

I collected prairie plants on the  
Wilson tract. The greater  
number of species appeared  
on the original prairie. On  
the restored prairie *Solidago*  
*virgata* predominates, & made this  
strip look greener than the  
native prairie. *Aster*  
*condifolius*? & *A. multiflorus*  
were also abundant.

On rocks in the path leading  
down to the Slough (in the  
ravine running W., & near bottom)  
I found a large amount of



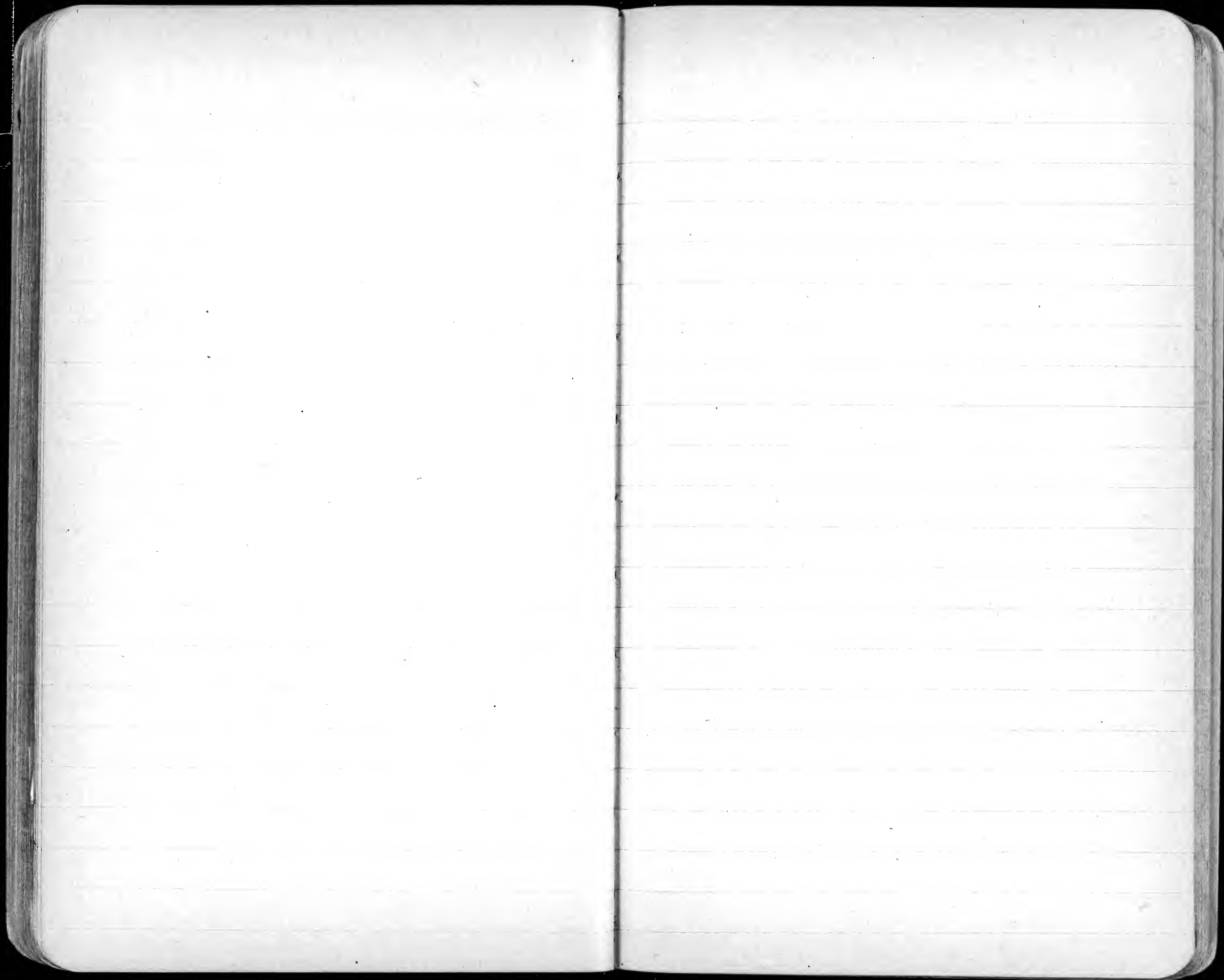
a gelatinous blue-green alga.  
I also picked up a number  
of *Polygala profunda* on the  
wooded slopes on SW. side, &  
*P. multiloba* lower down.  
Also a few *Pyramidula* alternating  
with the above.

I also found a number of  
*Caryocarpus exiguum* on banks  
in the swamp. Also one white  
strawberry under oak chip at  
edge of swamp, & a few  
*Simax*, etc.

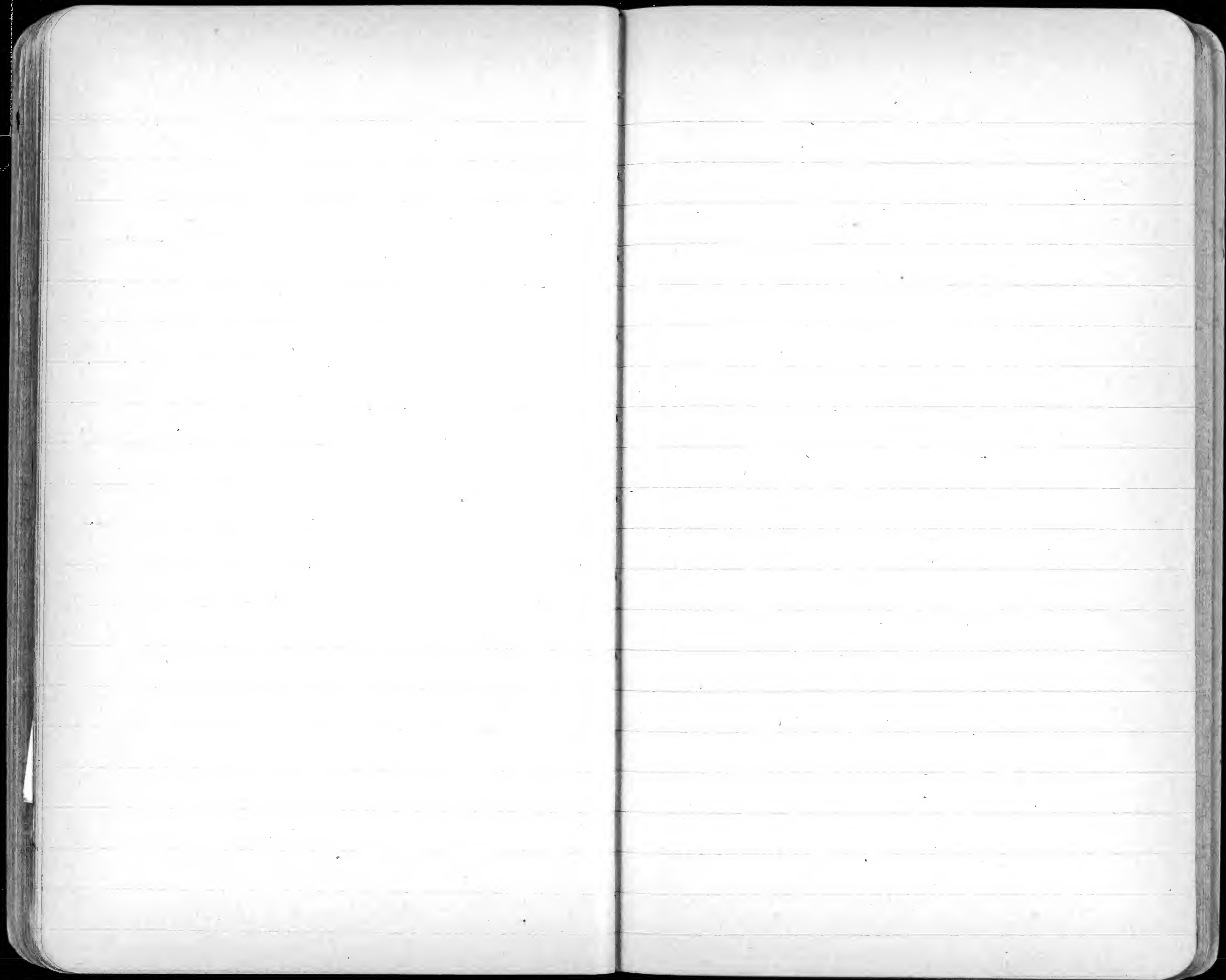
I collected a few plants along  
wooded banks, & in swamp.  
At 2 P.M. it began to rain  
again, & at 3<sup>20</sup> I went back  
on car.

Left Wasm. City at 6<sup>50+</sup>, via Manly,  
for Cedar Rapids.





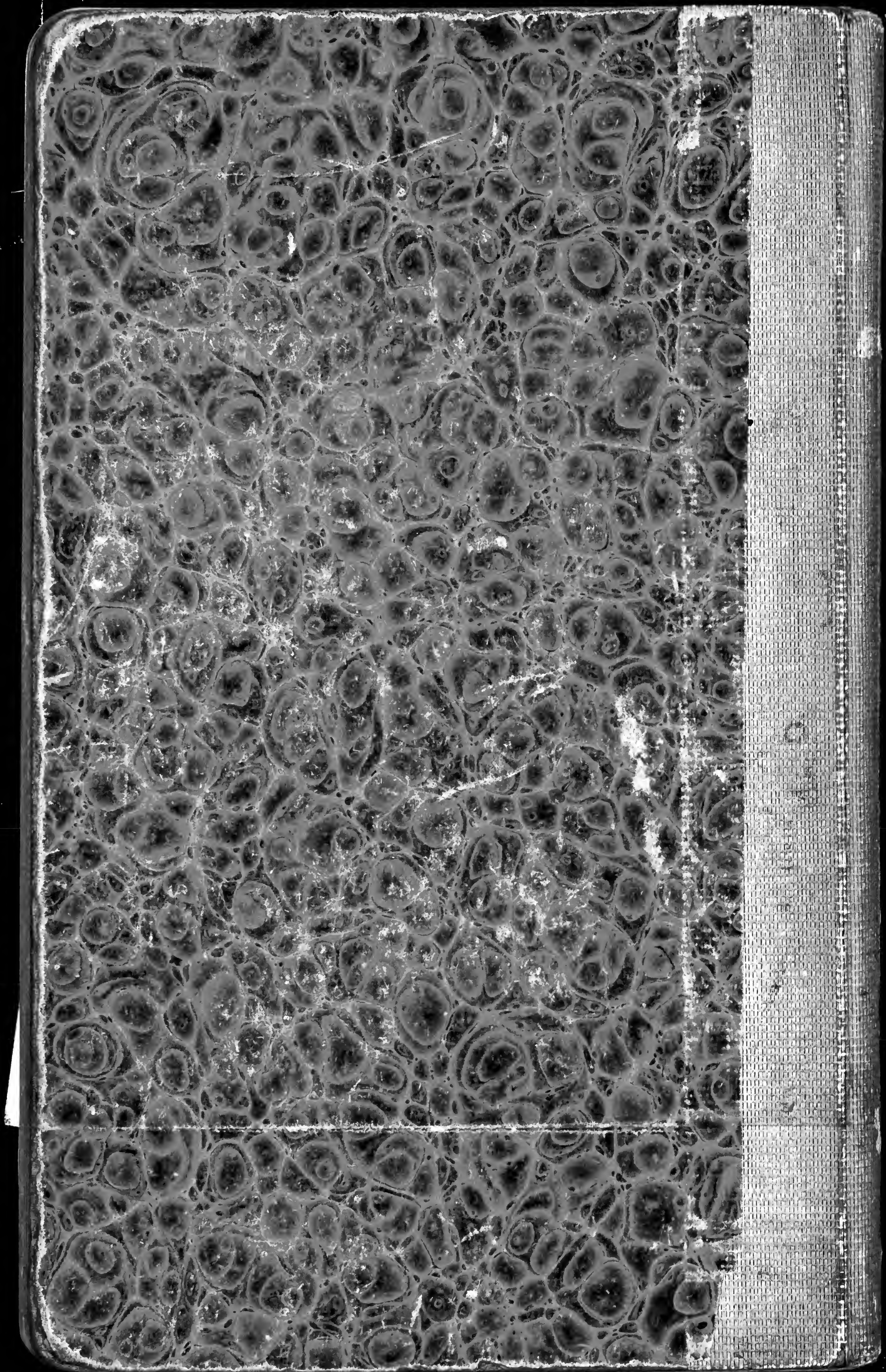






L. O. Severson  
Larchmont







1208 ft.

450°  
60°  
545°  
165°  
60°  
345°  
60°  
195°

1820 ft.

530°

126°

320°

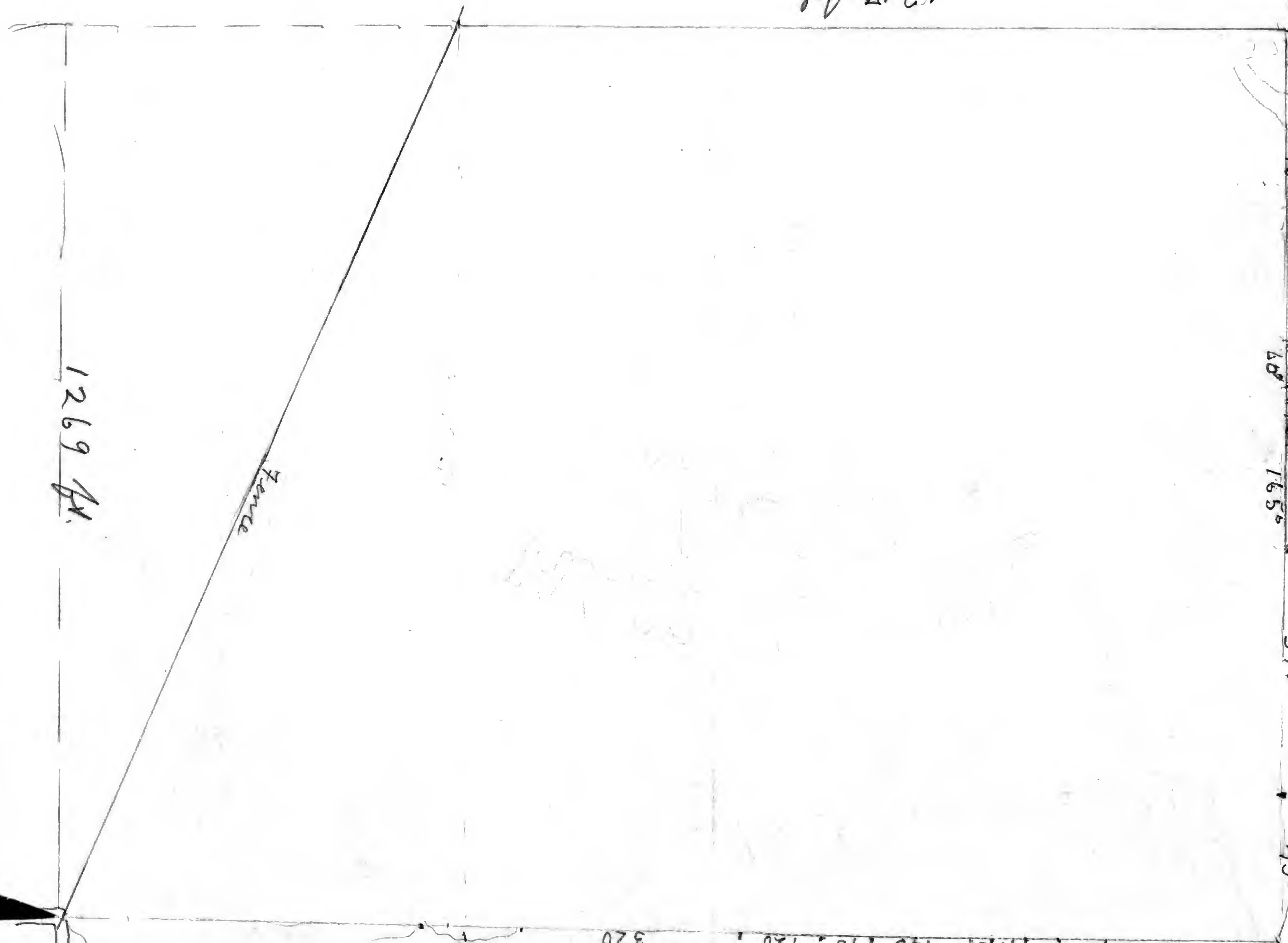
250°

60° 40° 45° 25°

140° 70° 120°

1269 ft.

fence





1720 ft. N. side

12698. 4.5

1200 ft D. in

$$\begin{array}{r} 530 \\ 440 \\ 330 \\ 170 \\ 250 \\ \hline 1720 \end{array}$$

5,87  
3,60

Dr. Kowalski - Kowalski

5/3

$$\begin{array}{r} 254 \\ 219 \\ \hline 35 \end{array}$$

66) 1200  $\sqrt{18.2 \text{ ch.}}$

19.23  
18.2

38 46

15384

1923

349.786

66) 18200    27.57 ch  
132  
500  
462  
9.37

35A. in square  
9A. in A

$$66 \overline{) 12690} \quad 19.23$$

19.23

9.37

134.6

5769

17307

$$2 \overline{) 18.018^5}$$
$$561 = 59$$
$$715 = 345$$
$$591 = 55$$
$$54 = 0$$
$$\begin{array}{r} 4212 \\ \times 177 \\ \hline 454 \\ 2528 \\ 42120 \\ \hline 756096 \end{array}$$
$$\begin{array}{r} 65 \\ \hline 55 \\ 42 \end{array}$$

$$\begin{array}{r}
 3.11 \\
 1.30 \\
 5.34 \\
 3.20 \\
 \hline
 10.95 \\
 2 \\
 \hline
 12.90
 \end{array}$$

450